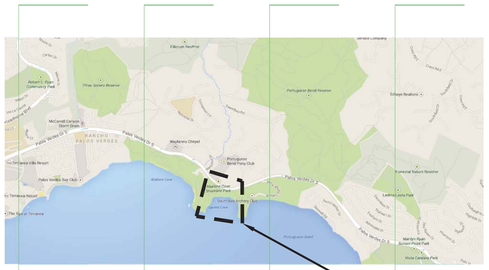
CITY OF RANCHO PALOS VERDES

ABALONE COVE SHORELINE PARK IMPROVEMENTS

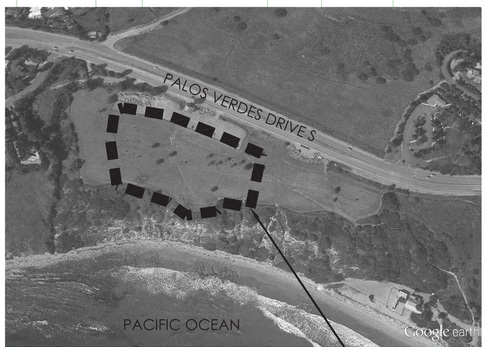
PROJECT NUMBER# 014412

5970 PALOS VERDES DRIVE S

RANCHO PALOS VERDES, CA 90275



VICINITY MAP



SITE MAP

GENERAL NOTES:

1. CONTRACTOR *MUST* VERIFY ALL DIMENSIONS IN FIELD AT START OF PROJECT. DRAWINGS ARE NOT BASED ON SITE SURVEY. REPORT ANY DISCREPANCY IMMEDIATELY TO PROJECT MANAGER.
2. THESE NOTES SHALL BE USED IN CONJUNCTION WITH THE PLANS AND SPECIFICATIONS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CITY PROJECT MANAGER.
3. ALL WORK SHALL BE PERFORMED ACCORDING TO CBC, CMC, CPC, CEC, ASTM D1557, ASTM D1556, ALL APPLICABLE CITY OF RANCHO PALOS VERDES STANDARDS, CITY ORDINANCE, CALIFORNIA ENERGY STANDARDS AND THE 2009 STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND ANY SUPPLEMENTS.
4. THIS WORK SHALL BE INSTALLED BY A LICENSED CONTRACTOR C-27 WHO SHALL CARRY WORKMAN'S COMPENSATION, GENERAL LIABILITY AND PROPERTY DAMAGE INSURANCE AS REQUIRED BY THE CITY OF RANCHO PALOS VERDES.
5. CHECK FOR EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION WORK. NOTIFY PERTINENT UTILITIES AND UNDERGROUND SERVICE ALERT AT 8-1-1 TWO WORKING DAYS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR COST INCURRED DUE TO DAMAGE AND REPLACEMENT OF SAID UTILITIES.
6. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY OR SUBSTRUCTURE SHOWN IN THESE PLANS WAS OBTAINED BY A SEARCH OF AVAILABLE RECORDS. NO CERTIFICATION IS MADE AS TO ACCURACY OR THOROUGHNESS OF THESE RECORDS. APPROVAL OF THESE PLANS BY THE CITY OF RANCHO PALOS VERDES DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF COMPLETENESS, LOCATION, THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY OR SUBSTRUCTURE WITHIN THE LIMITS OF THE PROJECT.
7. CONTRACTOR SHALL ARRANGE AND OBTAIN ALL REQUIRED PERMITS PRIOR TO THE START OF CONSTRUCTION, AND ARRANGE AND OBTAIN ALL REQUIRED DEPUTY OR SPECIAL INSPECTIONS.
8. CONTRACTOR SHALL PROVIDE PRELIMINARY AND FINAL LIEN RELEASES FROM ALL SUB-CONTRACTORS PRIOR TO FINAL PAYMENT.
9. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH DEMOLITION OR CONSTRUCTION SHOWN WHEN IT IS OBVIOUS THAT UNKNOWN CONDITIONS, OBJECTS, OR GRADE CHANGES EXIST THAT MAY HAVE NOT BEEN KNOWN DURING THE PREPARATION OF THIS PLAN. SUCH CONDITIONS, OBJECTS, OR GRADE CHANGES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CITY REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTICE.
10. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY POWER, WATER, AND LIGHTING AS REQUIRED TO PERFORM THE WORK. AT NO TIME DURING CONSTRUCTION SHALL WATER AND POWER BE TURNED OFF OR DISTURBED TO THE PARK FACILITY.
11. UPON COMPLETION OF INSTALLATION AND ACCEPTANCE BY THE CITY, AN ESTABLISHMENT PERIOD SHALL COMMENCE, AND UPON WRITTEN VERIFICATION FROM THE PROJECT MANAGER THAT ESTABLISHMENT IS ACCOMPLISHED, A 90 DAY MAINTENANCE PERIOD SHALL COMMENCE. SAID MAINTENANCE SHALL CONCLUDE ONLY AFTER VERIFICATION OF LEAF-OUT, FALL COLOR, FLOWER COLOR, OVERALL PLANT HEALTH, AND WITH CITY ACCEPTANCE OF THE IMPROVEMENTS. MAINTENANCE SHALL INCLUDE WEEDING, IRRIGATION, PRUNING, FERTILIZING AND APPLYING SUCH SPRAYS AS ARE NECESSARY FOR PROPER CARE AND UPKEEP. MAINTENANCE ALSO INCLUDES ALL REPAIRS, REPLACEMENT, CLEANING AND ADJUSTING NECESSARY TO KEEP THE IRRIGATION SYSTEM IN GOOD WORKING ORDER WITH PROPER COVERAGE, REQUIRED PRIOR TO FINAL ACCEPTANCE OF THE WORK BY THE CITY.
12. CONTRACTOR SHALL KEEP THE PREMISES CLEAN AND FREE OF EXCESS EQUIPMENT, MATERIALS AND RUBBISH INCIDENTAL TO THE WORK. ALL CONSTRUCTION DEBRIS SHALL BE CLEARED FROM THE SITE AT THE END OF EACH DAY.
13. CONTRACTOR'S ON-SITE DUMPSTER MUST BE FROM THE CITY OF RANCHO PALOS VERDES APPROVED COMPANIES.
14. ALL DEMOLISHED ITEMS SHALL BE DISPOSED OF PROPERLY AND IN ACCORDANCE WITH THE PROCEDURES STATED IN THE APPENDIX I, WASTE MANAGEMENT PLANNING FOR CONSTRUCTION AND DEMOLITION (C&D) PROJECTS, OF THE BID DOCUMENTS.
15. APPLICATION OF ANY CHEMICALS SHALL BE BY STATE LICENSED PERSONNEL. ALL PESTICIDE APPLICATIONS REQUIRE A P.C.A. RECOMMENDATION.
16. PRODUCTS THAT ARE DESIGNATED BY THE MANUFACTURER MAY BE SUBSTITUTED BY EQUAL PRODUCTS SUBJECT TO PRIOR WRITTEN APPROVAL OF THE CITY PROJECT MANAGER.
17. CONSTRUCTION CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE SAFETY OF ALL PERSONS AND PROPERTY IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT TO BE LIMITED TO NORMAL WORKING HOURS. CONSTRUCTION CONTRACTOR AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONALS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A CONSTRUCTION SURVEY IF IT IS DEEMED NECESSARY.
19. ALL THE WORK INCLUDED IN THE SCOPE MUST BE AMERICANS WITH DISABILITIES ACT (A.D.A.) COMPLIANT.
20. CONTRACTOR SHALL FOLLOW THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
21. CONTRACTOR SHALL INSTALL SAFETY FENCING AROUND PROJECT AREA PER DRAWINGS AND SPECIFICATIONS.
22. WITH THE EXCEPTION OF THE CONSTRUCTION AREA, ABALONE COVE SHORELINE PARK SHALL REMAIN OPEN DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE SAFE PARKING AND PUBLIC ACCESS TO THE PARK.

SHEET INDEX:

CONTACTS:

CITY OF RANCHO PALOS VERDES
DEPARTMENT OF PUBLIC WORKS
30940 HAWTHORNE BOULEVARD
RANCHO PALOS VERDES, CA 90275
(310) 544-5252 PHONE
(310) 544-5292 FAX

CITY PROJECT MANAGER:
BINDU VAISH
DEPARTMENT OF PUBLIC WORKS
CITY OF RANCHO PALOS VERDES
(310) 544-5252
binduv@rpv.com

LANDSCAPE ARCHITECT:
MELENDREZ
617 S OLIVE STREET
11TH FLOOR
LOS ANGELES, CA 90014
(213) 637-5000 PHONE
(213) 637-5001 FAX
MAIN CONTACT: JENNIFER PACKER
jpacker@melendrez.com

CIVIL ENGINEER:
KPFF CONSULTING ENGINEERS
6080 CENTER DRIVE
LOS ANGELES, CA 90045
(310) 665-1536 PHONE
MAIN CONTACT: JEFF BAUMGARDNER

UNDERGROUND SERVICE ALERT (USA)	(800) 227-2600
SOUTHERN CALIFORNIA EDISON COMPANY	(310) 783-1156
SOUTHERN CALIFORNIA GAS COMPANY	(310) 687-2020
CALIFORNIA WATER SERVICE COMPANY	(310) 541-2438
COUNTY OF LOS ANGELES, PUBLIC WORKS DEPARTMENT (STORM DRAIN)	(626) 458-3109
COUNTY OF LOS ANGELES, PUBLIC WORKS DEPARTMENT (SEWER)	(626) 458-4357
SANITATION DISTRICT OF LOS ANGELES COUNTY	(562) 699-7411 X1205
LOS ANGELES COUNTY SHERIFF'S DEPARTMENT	(310) 539-1661
LOS ANGELES FIRE DEPARTMENT	(310) 830-3361

INTERIM DIRECTOR OF PUBLIC WORKS DATE

REVISIONS:

NO.	DATE	ITEM

PROJECT: ABALONE COVE SHORELINE PARK IMPROVEMENTS

SHEET TITLE: TITLE SHEET

MELÉNDREZ
James Oviatt Building, 11th Floor
617 South Olive Street
Los Angeles, California 90014
T 213-673-4400
F 213-673-4410
www.melendrez.com

REGISTRATION:

LICENSED LANDSCAPE ARCHITECT
JENNIFER PACKER
No.4933
Signature
2-28-15
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: 1305101.00

SUBMITTAL DATE: 08/09/2013

PHASE: CONST. DOCS. (90%)

DESIGNED BY: AH

DRAWN BY: JM / TA

PLAN NO:

T-1

SHEET NO: 01 OF 16

EROSION CONTROL NOTES

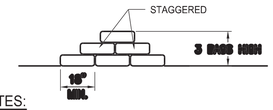
1. FIBER ROLLS PER 2012 CASQA CONSTRUCTION BMP HANDBOOK SE-5 (FIBER ROLLS) STANDARD DETAILS.
2. SANDBAG BARRIER PER DETAIL 1 HEREON

LEGEND

- FIBER ROLLS
- SANDBAG BARRIER
- LIMIT OF EROSION CONTROL

GENERAL NOTES

1. CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND PROJECT AREA.



NOTES:

1. SANDBAG SHALL BE FILLED WITH NON-COHESIVE, CLASS 1 OR CLASS 2, PERMEABLE MATERIAL FREE FROM CLAY AND DELETERIOUS MATERIAL.
2. ADJUST SANDBAG LOCATION PER SOIL DISTURBANCE AREA.

1 SANDBAG DETAIL

C1.10 REF. SCALE: NOT TO SCALE

N

0 15' 30'

SCALE: 1"=30'

REVISIONS:

NO.	DATE	ITEM

PROJECT: ABALONE COVE SHORELINE PARK IMPROVEMENTS

SHEET TITLE: EROSION CONTROL

kpff Consulting Engineers
6080 Center Dr. Suite 700
Los Angeles, California 90045
(310) 665-2800 Fax (310) 665-9075

REGISTRATION:

PROJECT NO: 1305101.00

SUBMITTAL DATE: 08/09/2013

PHASE: CONST. DOCS. (90%)

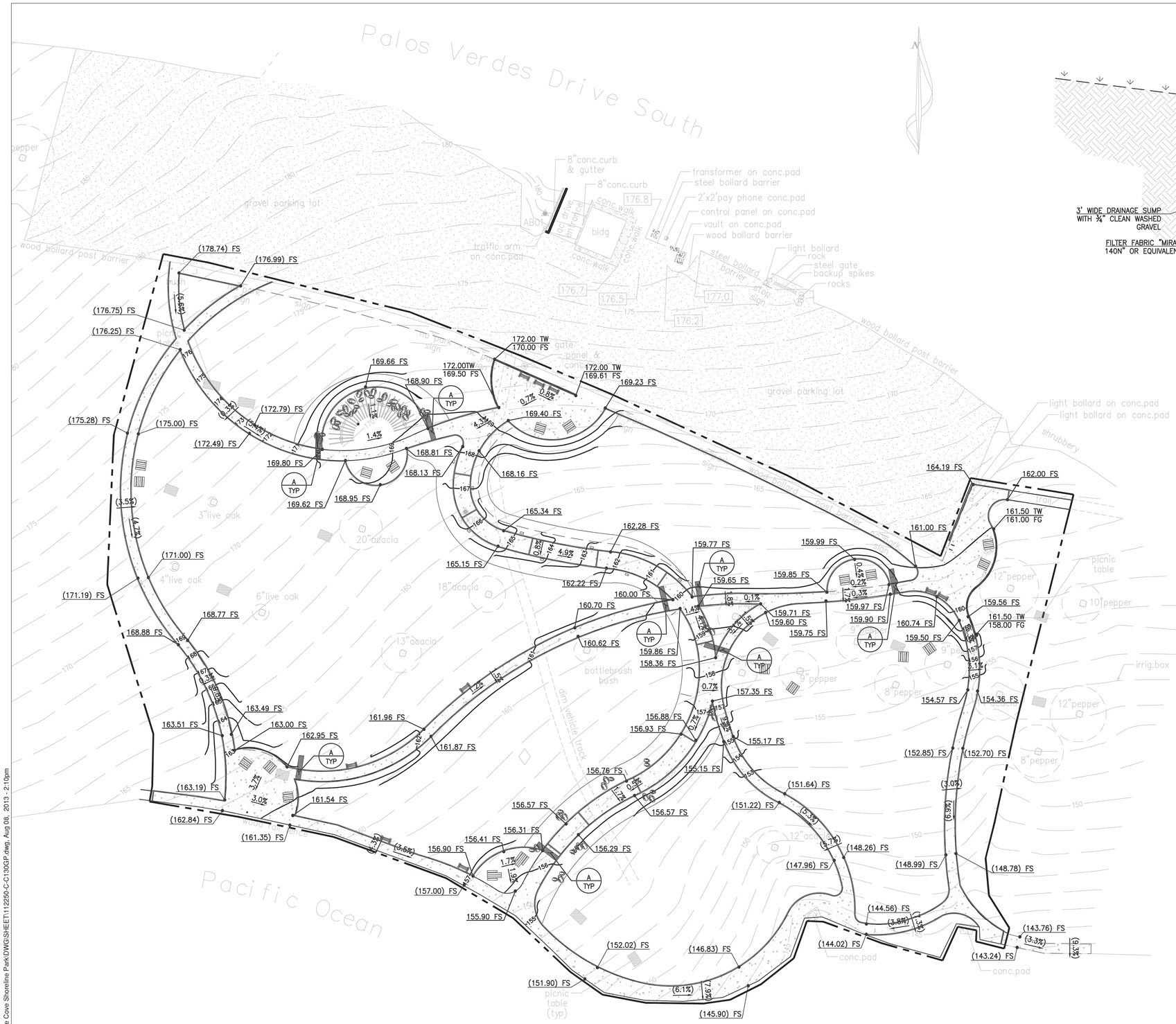
DESIGNED BY: HM

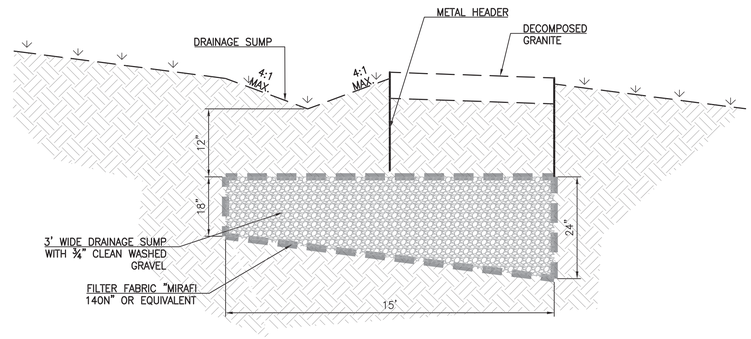
DRAWN BY: JB / HM

PLAN NO:

C1.10

SHEET NO: 02 OF 16





A TYP **DRAINAGE PIT – TYPICAL SECTION**
N.T.S

RPV

REVISIONS:

NO.	DATE	ITEM

PROJECT: ABALONE COVE SHORELINE PARK IMPROVEMENTS

SHEET TITLE: GRADING AND DRAINAGE

kpff Consulting Engineers
6080 Center Dr. Suite 700
Los Angeles, California 90045
(310) 665-2800 Fax (310) 665-9075

REGISTRATION:

PROJECT NO: 1305101.00
SUBMITTAL DATE: 08/09/2013
PHASE: CONST. DOCS. (90%)
DESIGNED BY: HM
DRAWN BY: JB / HM

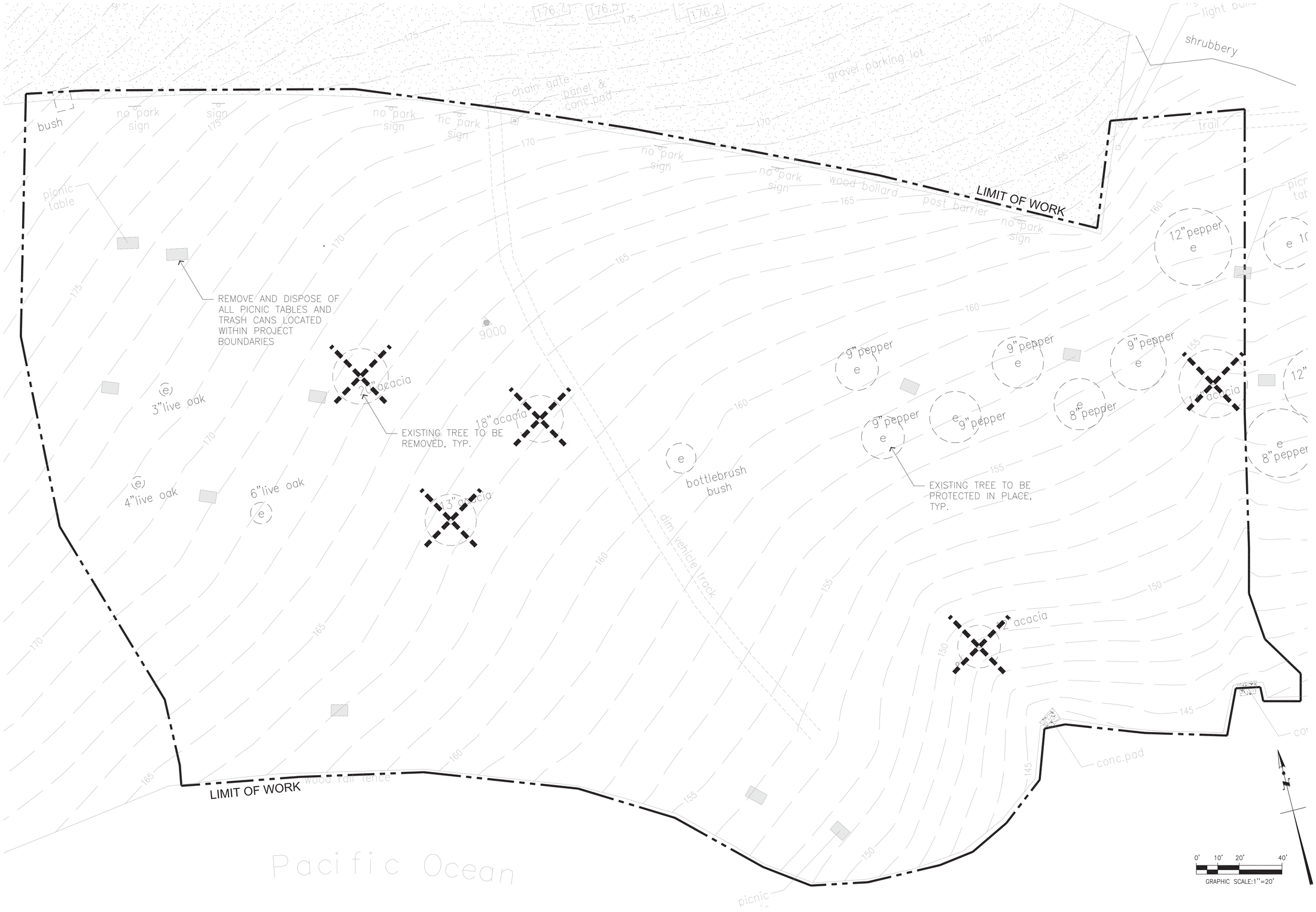
PLAN NO:

C1.30

SHEET NO: 03 OF 16

N
0 15' 30'
SCALE: 1"=30'

P:\2012\112250 Abalone Cove Shoreline Park\DWG\SHEET\112250-C-C130GP.dwg, Aug 08, 2013 - 2:10pm



RPV

REVISIONS:

NO.	DATE	ITEM

PROJECT: ABALONE COVE SHORELINE PARK IMPROVEMENTS

SHEET TITLE: SITE DEMOLITION PLAN

MELÉNDREZ

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f 213-673-4400
f 213-673-4410
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REGISTRATION:

LICENSED LANDSCAPE ARCHITECT
JENNIFER PACKER
No. 4933
Signature
2-28-15
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: 1305101.00

SUBMITTAL DATE: 08/09/2013

PHASE: CONST. DOCS. (90%)

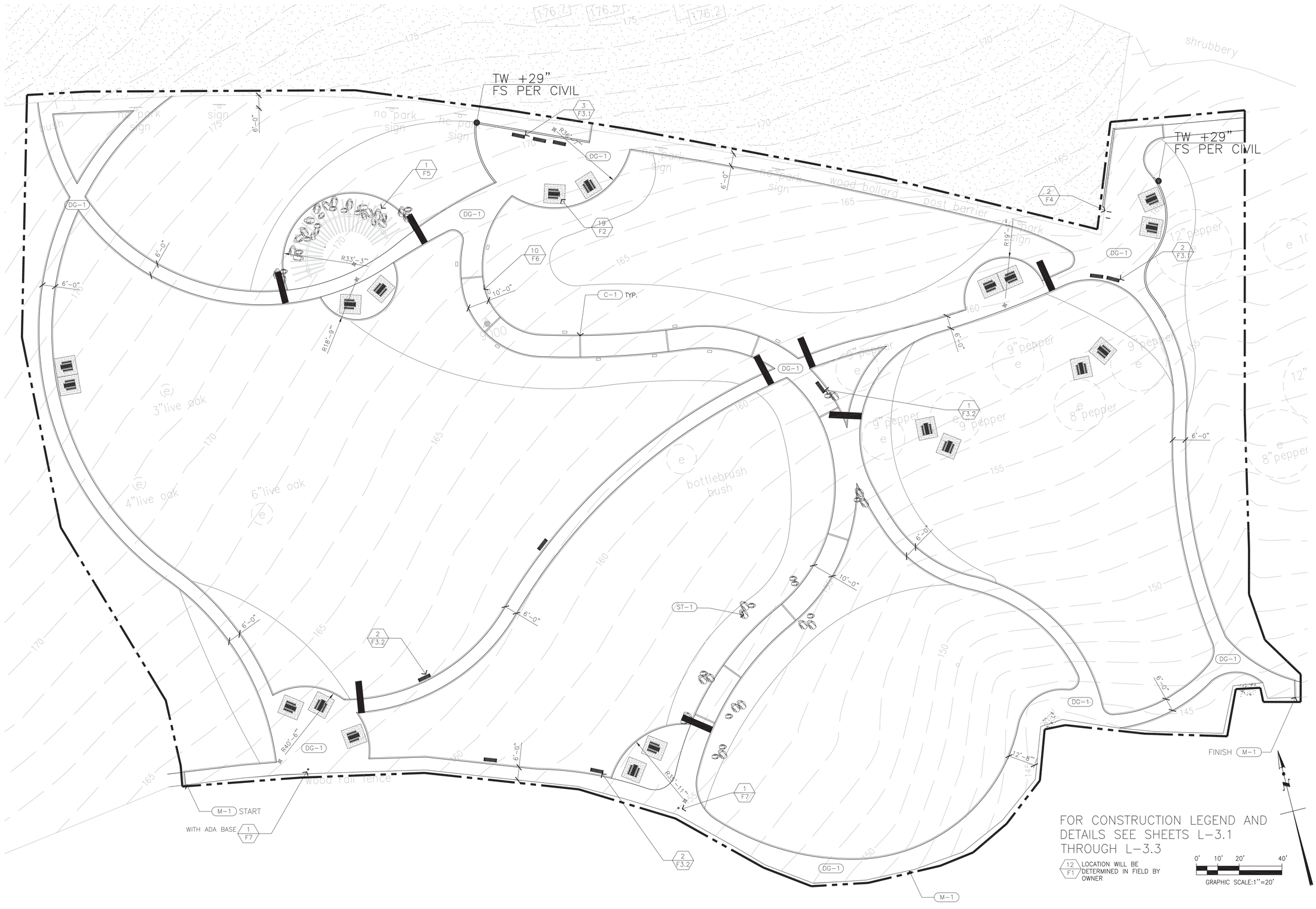
DESIGNED BY: AH

DRAWN BY: JM / TA

PLAN NO:

L-1

SHEET NO: 04 OF 16



RPV

REVISIONS:

NO.	DATE	ITEM

ABALONE COVE SHORELINE PARK IMPROVEMENTS

PROJECT:

CONSTRUCTION PLAN

SHEET TITLE:

MELÉNDREZ
James Oviatt Building, 11th Floor
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f 213-673-4410
www.melendrez.com

REGISTRATION:

LICENSED LANDSCAPE ARCHITECT
JENNIFER PACKER
No.4933
Signature
2-28-15
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: 1305101.00

SUBMITTAL DATE: 08/09/2013

PHASE: CONST. DOCS. (90%)

DESIGNED BY: AH

DRAWN BY: JM / TA

PLAN NO:

L-2

SHEET NO: 05 OF 16

SITE FURNISHING SCHEDULE

KEY	DESCRIPTION	MODEL #	COLOR / FINISH	SOURCE / CONTACT INFO	QTY.	COMMENTS
F1	TRASH RECEPTACLE	GRETCHEN RECEPTACLE ([side] / [top] OPENING)	JARRAH / BRONZE POWDERCOAT	LANDSCAPE FORMS DIST. BY CHAPARRAL LINE LARRY CASEY (818.761.0655) OR APPROVED EQUAL	12	INSTALL PER MANUFACTURERS RECOMMENDATIONS CONTRACTOR FURNISH, CONTRACTOR INSTALL
F2	ADA PICNIC TABLE W/ SEATS	GRETCHEN (ADA CUSTOM BUILD), W/O UMBRELLA HOLE	JARRAH WITH BRONZE POWDERCOAT SUPPORTS	LANDSCAPE FORMS DIST. BY CHAPARRAL LINE LARRY CASEY (818.761.0655) OR APPROVED EQUAL	19	INSTALL PER MANUFACTURERS RECOMMENDATIONS SURFACE MOUNT WITH GLIDES CONTRACTOR FURNISH, CONTRACTOR INSTALL
F3.1	BENCH (AT SEATING NODES)	BALUSTRADE (BACKED, 72" LONG, WITH NO ARMS)	JARRAH WITH BRONZE POWDERCOAT SUPPORTS	LANDSCAPE FORMS DIST. BY CHAPARRAL LINE LARRY CASEY (818.761.0655) OR APPROVED EQUAL	5	INSTALL PER MANUFACTURERS RECOMMENDATIONS EMBED MOUNT CONTRACTOR FURNISH, CONTRACTOR INSTALL
F3.2	BENCH (ALONG TRAIL)	SHADOWLINE (72" LENGTH)	JARRAH WITH BRONZE POWDERCOAT SUPPORTS	LANDSCAPE FORMS DIST. BY CHAPARRAL LINE LARRY CASEY (818.761.0655) OR APPROVED EQUAL	5	INSTALL PER MANUFACTURERS RECOMMENDATIONS EMBED MOUNT CONTRACTOR FURNISH, CONTRACTOR INSTALL
F4	BIKE RACK	INVERTED U	BLACK POWDERCOAT	CYCLESAFE, INC. (888.950.6531) OR APPROVED EQUAL	2	INSTALL PER MANUFACTURERS RECOMMENDATIONS CONTRACTOR FURNISH, CONTRACTOR INSTALL
F5	SHADE STRUCTURE	GRE-30 REFER TO DETAIL 4, L-3.2	SURREY BEIGE POWDER COAT	POLIGON DIST. BY MIRACLE PLAYGROUND SALES SOUTH (800.264.7225) OR APPROVED EQUAL	1	INSTALL PER MANUFACTURERS RECOMMENDATIONS CONTRACTOR FURNISH, CONTRACTOR INSTALL
F6	FOSSIL DIG DIGGABLE PLAY	#120292A – SEA SHELLS REFER TO DETAIL 5, L-3.1	N/A	LANDSCAPE STRUCTURES (800.328.6035) OR APPROVED EQUAL	10	INSTALL PER MANUFACTURERS RECOMMENDATIONS CONTRACTOR FURNISH, CONTRACTOR INSTALL
F7	COIN-OPERATED TELESCOPE	MARK III – LIMITED ROTATION (PROVIDE ONE WITH ADA BASE)	HAMMER GRAY POWDERCOAT	SEECOAST MANUFACTURING COMPANY, INC. (800.343.8882) OR APPROVED EQUAL	2	INSTALL PER MANUFACTURERS RECOMMENDATIONS CONTRACTOR FURNISH, CONTRACTOR INSTALL

FINISH SCHEDULE

KEY	MATERIAL	COLOR/MANUF.	FINISH	COMMENTS
C-1	CONCRETE STRIP	NATURAL GREY CONCRETE	EMBEDDED FOSSILS	REFERENCE DETAIL 2, SHEET L-3.2
CMU-1	8" CMU BLOCK WALL WITH 2" CMU CAP	HARVEST SPLIT FACE BY ANGELUS BLOCK OR APPROVED EQUAL (818) 767-8576)	-	REFERENCE DETAIL 3, SHEET L-3.2
ST-1	BOULDERS	ARROWWOOD - DISTRIBUTED BY SOUTHWEST BOULDER AND STONE OR APPROVED EQUAL	-	60% 30"x30", 20% 48"x48", 20% 72"x72" REFERENCE DETAIL 3, SHEET L-3.1
DG-1	DECOMPOSED GRANITE	CALIFORNIA GOLD DISTRIBUTED BY GAIL PRODUCTS OR APPROVED EQUAL.	-	ACCESSIBLE PATHS ONLY - REF. SPECS. AND DETAIL 1, SHEET L-3.1
GS-1	SOIL STABILIZER	GORILLA-SNOT® AS SUPPLIED BY SOILWORKS, LLC (800.545.5420)	-	REF. SPECS.
M-1	1/4" CABLE RAIL	FEENEY INC. (800.264.7225)	-	REPLACE EXISTING POSTS EVERY 50'-0" WITH 4X6 WOOD POST. INSTALL 3 ROWS OF CABLE RAIL PER DETAIL 1, SHEET L-3.2
M-2	METAL HEADER	PERMALOC PERMASTRIP	BLACK DURAFLEX	REFERENCE DETAIL 2, SHEET L-3.1

KEYNOTE LEGEND

SITE FURNISHINGS — QUANTITY / SITE FURNISHING SCHEDULE REFERENCE KEY NUMBER

FINISH SURFACE KEY

BENCH

ALIGN

DIRECTION – DRAINAGE

PICNIC TABLE

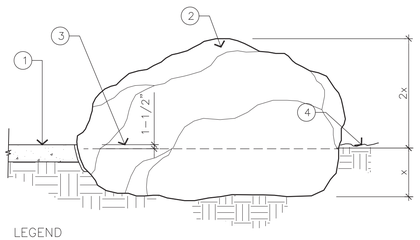
ADA ACCESSIBLE PICNIC TABLE

TELESCOPE

BIKE RACK

BOULDER

TRELLIS



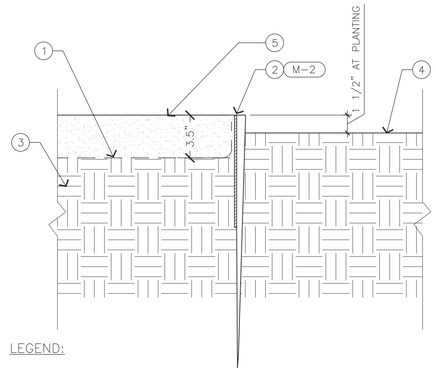
LEGEND

1. DECOMPOSED GRANITE PAVING
2. BOULDER
3. 1-1/2" IN GROUNDCOVER/SHRUB AREAS.
4. FINISH GRADE

CONTRACTOR TO PROVIDE (36) 3' X 3' X 3', (12) 4' X 4' X 4' AND (12) 6' X 6' X 6' AS SUPPLIED BY SOUTHWEST BOULDER. ARROWWOOD BOULDERS OR APPROVED EQUAL. BOULDERS TO BE LOCATED IN FIELD BY LANDSCAPE ARCHITECT AND / OR OWNER.

PRIOR TO PURCHASE OF BOULDERS, CONTRACTOR TO PROVIDE SAMPLE BOULDER FOR REVIEW AND APPROVAL BY L.ARCH AND OWNER.

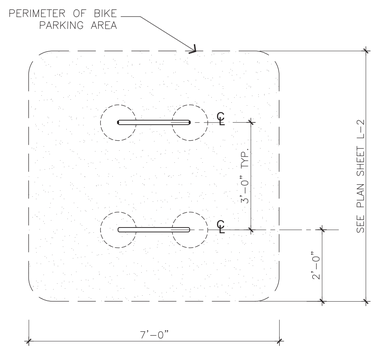
3 BOULDER INSTALLATION
1" = 1'-0"



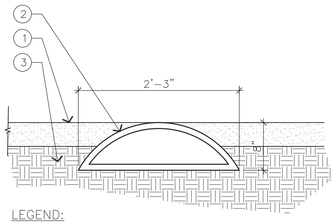
LEGEND:

1. WEED BARRIER / SOIL SEPARATOR FABRIC, PER SPECIFICATIONS
2. METAL HEADER
3. COMPACTED SUBGRADE TO 90%
4. PLANTING AREA
5. DECOMPOSED GRANITE PAVING PER FINISH SCHEDULE

1 DECOMPOSED GRANITE
1-1/2" = 1'-0"



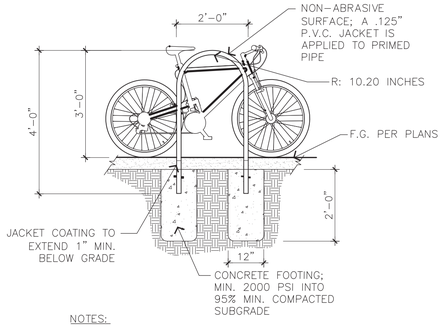
TYPICAL PLAN



LEGEND:
1. PLANTER MULCH
2. FOSSIL DIG AS PROVIDED BY LANDSCAPE STRUCTURES, INC.
3. COMPACTED SUBGRADE.

NOTE:
FOSSIL DIG TO BE LOCATED IN FIELD BY LANDSCAPE ARCHITECT AND / OR OWNER.

5 FOSSIL DIG
1" = 1'-0"



NOTES:

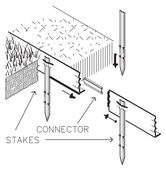
1. MANUFACTURER: CYCLE-SAFE WWW.CYCLESAFE.COM PHONE: 888.950.6531
2. MODEL# U/2 – BICYCLE RACK PART #12700; 1-1/2" INTERIOR DIA. SCHEDULE 40 PIPE ROLLED IN THE SHAPE OF AN INVERTED "U" TO A 24" OUTSIDE RADIUS STANDING 36" HIGH. COATING TO BE PLASTISOL RUBBERIZED APPLYING 12-20 MILS THICK JACKET. STANDARD COLOR: BLACK TEXTURE: REGULAR GRAIN. GLOSS-SEMI GLOSS. TENSILE STRENGTH: 1800 PSI MIN. IN-GROUND (G) MOUNT.
3. QUANTITY: PER PLANS
4. SEAL HEX SOCKET WITH CANDLE WAX OR DUCT TAPE TO PROTECT (PER MANUFACTURER'S SPECS)

4 BIKE RACK
1/2" = 1'-0"

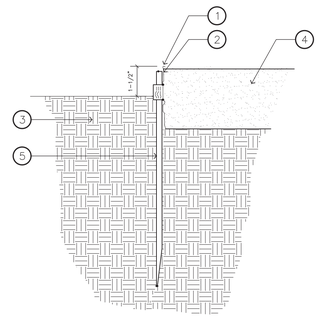
⅛" X 3½" (3.2 MM x 89 MM), 0.060" (1.52 MM) THICK
W/ 0.200" (5.08 MM) EXPOSED TOP LIP
(BL) BLACK DURAFLEX ELECTROSTATICALLY PAINTED

LEGEND:
1. PERMALOC PERMASTRIP ALUMINUM EDGING
2. TOP OF EDGING TO BE MAXIMUM OF ½" (12.7MM) ABOVE SURFACE MATERIAL
3. COMPACT GRADES ADJACENT TO EDGING TO AVOID SETTLING
4. MULCH PLANTING AREA
5. 12" ALUMINUM STAKES TO LOCK INTO PREFORMED LOOPS ON THE EDGING

NOTES:
A. INSTALL PER MANUFACTURER'S "INSTALLATION GUIDELINES"
B. 8'-0" (2.44 M) SECTIONS TO INCLUDE (3) 12" (305 MM) ALUMINUM STAKES.
C. 16'-0" (4.88 M) SECTIONS TO INCLUDE (8) 12" (305 MM) ALUMINUM STAKES.
D. CORNERS: NOTCH BASE ONLY AND FORM A CONTINUOUS CORNER.



ISOMETRIC VIEW
NTS



2 METAL HEADER
3" = 1'-0"

REVISIONS:

NO.	DATE	ITEM

ABALONE COVE SHORELINE PARK IMPROVEMENTS

CONSTRUCTION LEGEND AND DETAILS

PROJECT:

SHEET TITLE:

MELÉNDREZ
James Ovlatt Building, 11th Floor
617 South Olive Street
Los Angeles, California 90014
f 213-673-4600
f 213-673-4410
www.melendrez.com

REGISTRATION:

LICENSED LANDSCAPE ARCHITECT
JENNIFER PACKER
No. 4933
Signature
2-28-15
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: 1305101.00

SUBMITTAL DATE: 08/09/2013

PHASE: CONST. DOCS. (90%)

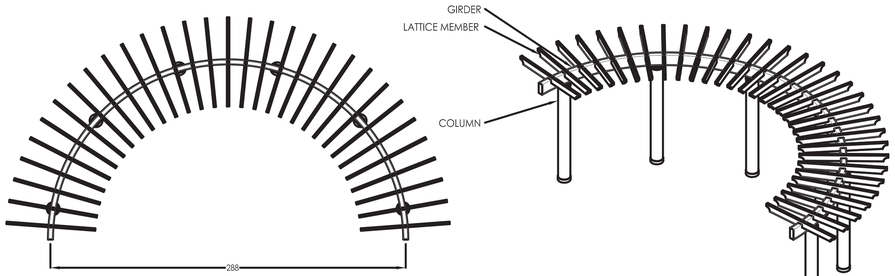
DESIGNED BY: AH

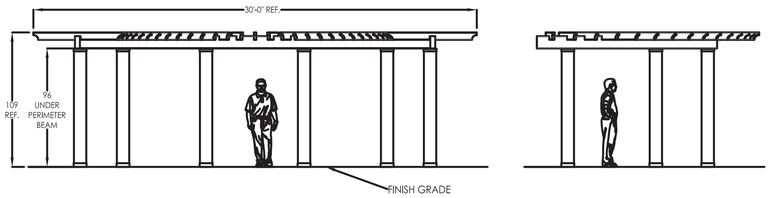
DRAWN BY: JM / TA

PLAN NO:

L-3.1

SHEET NO: 06 OF 16





NOTE: THIS IS A

PLANNING LEVEL DRAWING.

THE STRUCTURE SHOWN IS SUBJECT TO ON-GOING DESIGN REVIEW AND UPDATE. EXPECT SOME CHANGES TO MATERIAL SIZES AND GENERAL DIMENSIONS. ONLY USE DRAWINGS PROVIDED WITH ENGINEERED STRUCTURES FOR CONSTRUCTION.

SEE FINISHES / ROOFING PAGE FOR:
- FRAME FINISH OPTIONS
- POWDER COAT AND ROOFING COLOR SELECTION
- TONGUE & GROOVE, STRUCTURAL INSULATED PANEL AND METAL ROOF OPTIONS
- OTHER ROOFING OPTIONS

SEE ORNAMENTATION PAGE FOR:
- ORNAMENTATION PATTERNS
- RAILING PATTERNS
- COLUMN OPTIONS

FRAME AND ORNAMENTATION FINISH:
MEMBERS SHOT BLASTED TO NEAR WHITE CONDITION (SSPC SP-10), WASHED AND SEALED IN A PHOSPHATE SPRAY, COATED WITH SUPER DURABLE TGIC POLYESTER POWDER AND OVEN CURED.

SEE COLOR MATRIX FOR AVAILABLE COLORS.

OPTIONAL UNDERCOAT:
EPOXY E-COAT SYSTEM, USING FULL IMMERSION ELECTRO-DEPOSITION PROCESS.

SHELTER MODEL:
GRECO 30
GRE-30

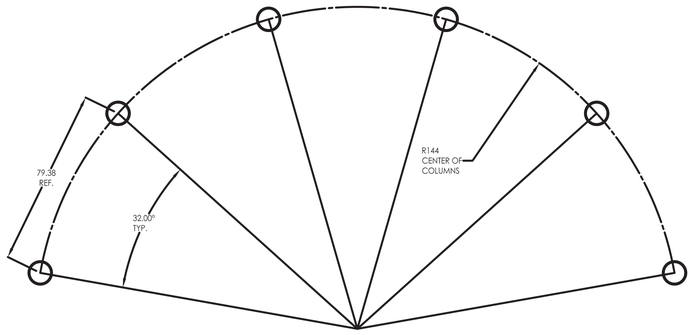
SCALE:	REV LEVEL:	DATE:
1:58	A	10/15/2008

poligon® PARK ARCHITECTURE

by PORTERORP
PORTERCORP. 4240 N. 136th AVE. HOLLAND, MI 49424
www.poligon.com 800-354-7721

SHEET: **ELEVATION VIEWS**

4 SHADE STRUCTURE
N.T.S.



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PLANNING LEVEL DRAWING.

THE STRUCTURE SHOWN IS SUBJECT TO ON-GOING DESIGN REVIEW AND UPDATE. EXPECT SOME CHANGES TO MATERIAL SIZES AND GENERAL DIMENSIONS. ONLY USE DRAWINGS PROVIDED WITH ENGINEERED STRUCTURES FOR CONSTRUCTION.

REFER TO ANCHOR AND FOOTING DOWNLOAD SHEETS FOR GENERAL INFORMATION ON BOTH ANCHOR ATTACHMENT AND TYPICAL FOOTING TYPES. ANCHOR ATTACHMENT AND FOOTING DESIGNS ARE SITE AND SITUATION SPECIFIC AND ARE INTEGRAL TO THE FINAL SHELTER DESIGN.

DO NOT POUR FOOTING OR INSTALL ANCHOR BOLTS WITHOUT JOB SPECIFIC ANCHOR AND FOOTING DESIGN DRAWINGS.

ALL POLIGON COLUMN ANCHORING SYSTEMS ARE OSHA COMPLIANT.

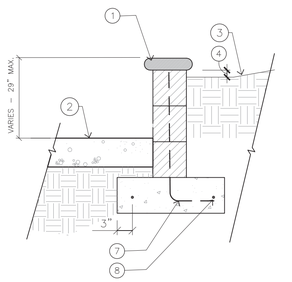
SHELTER MODEL:
GRECO 30
GRE-30

SCALE:	REV LEVEL:	DATE:
1:32	A	10/15/2008

poligon® PARK ARCHITECTURE

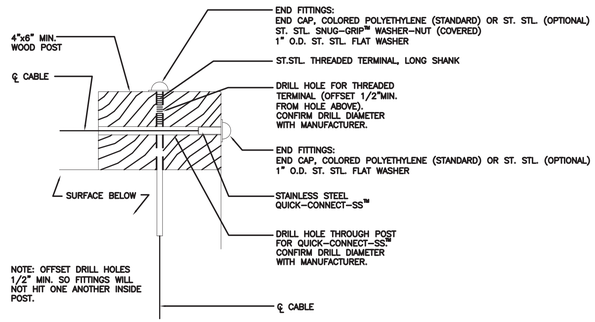
by PORTERORP
PORTERCORP. 4240 N. 136th AVE. HOLLAND, MI 49424
www.poligon.com 800-354-7721

SHEET: **COLUMN LAYOUT**



LEGEND
1. 8" CMU WALL W/ 2" CMU CAP
2. DECOMPOSED GRANITE PAVING– 4" THK.
3. F.G.
4. 1 1/2".
5. CONCRETE FOOTING.
6. 4" OF DRAINAGE MATERIAL.
7. #4 BARS @ 24" O.C. – VERTICAL ONLY
8. #4 BARS @ 12" O.C. EW

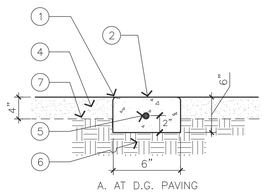
3 CMU RETAINING WALL
N.T.S.



MAINTAIN 10'–0" MAX. SPACING BETWEEN POSTS PICKETS TO MINIMIZE CABLE DEFLECTION.
MAINTAIN 50'–0" MAX. SPACING BETWEEN TERMINATION (NEW) POSTS TO MINIMIZE CABLE DEFLECTION.

NOTE: BUILDING CODES VARY BY CITY & COUNTY. FOLLOWING THE INSTALLATION AND RAILING DESIGN INSTRUCTIONS AS DETAILED IN THIS DRAWING DOES NOT GUARANTEE CODE COMPLIANCE IN ALL AREAS. BEFORE STARTING THE PROJECT, CHECK WITH LOCAL REQUIREMENTS FOR USING AND INSTALLING CABLE RAILINGS.

1 CABLE RAIL FENCING
N.T.S.



A. AT D.G. PAVING

LEGEND:
1. 1/2" RADIUS EDGE (TYP.)
2. CONCRETE HEADER, NATURAL GREY WITH MEDIUM SANDBLAST FINISH WITH IMPRINTED PLANT MATERIALS.
3. PLANTING AREA
4. DECOMPOSED GRANITE PAVING
5. #4 BAR CONTINUOUS (TYP.)
6. 95% COMPACTED SUB–GRADE
7. WEED BARRIER / SOIL SEPARATOR FABRIC

NOTE:
A. PROVIDE 1/4" EXPANSION JOINT (E.J.) @ 15' O.C. W/ 5'–0" O.C. SAW–CUT JOINTS.
B. PROVIDE 6" X 10' LONG MOCK–UP FOR REVISION AND APPROVAL.

2 CONCRETE HEADER
N.T.S.

RPV

REVISIONS:

NO.	DATE	ITEM

PROJECT: ABALONE COVE SHORELINE PARK IMPROVEMENTS

SHEET TITLE: CONSTRUCTION DETAILS

MELÉNDREZ
James Oviatt Building, 11th Floor
617 South Olive Street
Los Angeles, California 90014
f 213-673-4400
f 213-673-4410
www.melendrez.com

REGISTRATION:

LICENSED LANDSCAPE ARCHITECT
JENNIFER PACKER
No. 4933
Signature
2–28–15
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: 1305101.00

SUBMITTAL DATE: 08/09/2013

PHASE: CONST. DOCS. (90%)

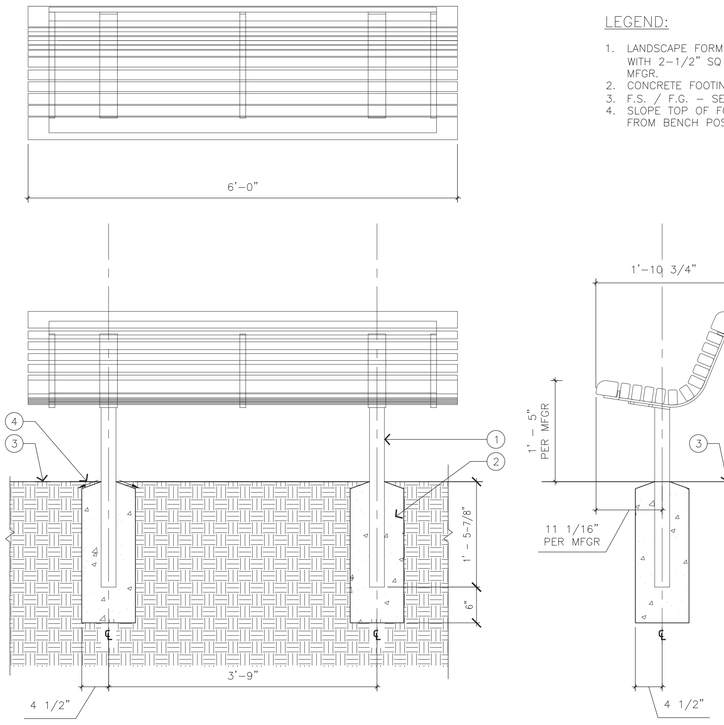
DESIGNED BY: AH

DRAWN BY: JM / TA

PLAN NO:

L-3.2

SHEET NO: 07 OF 16

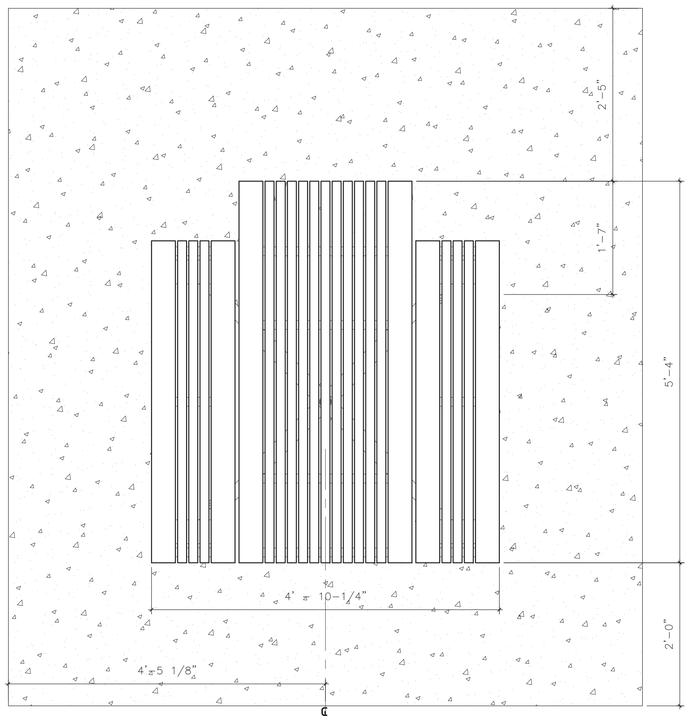


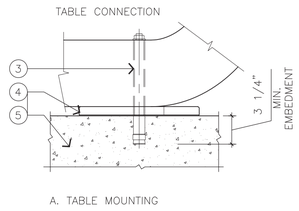
LEGEND:

1. LANDSCAPE FORMS BALUSTRADE BENCH WITH 2-1/2" SQ POST SUPPORTS, PER MFGR.
2. CONCRETE FOOTING
3. F.S. / F.G. – SEE PLANS
4. SLOPE TOP OF FOOTING MIN. 1% AWAY FROM BENCH POST

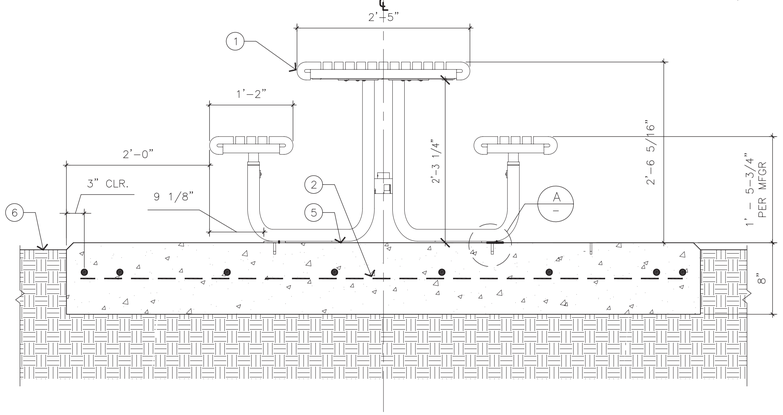
1 BALUSTRADE BENCH MOUNTING

1" = 1'-0"





A. TABLE MOUNTING

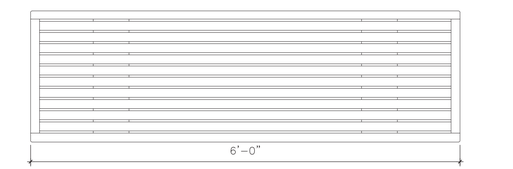


LEGEND:

1. LANDSCAPE FORMS GRETCHEN TABLE.
2. #4 @ 18" O.C. E.W. REBAR REINFORCING
3. (4) 1/4" w/ 3-1/4" EMBED STAINLESS STEEL HILTI KBT2 SS304 ANCHOR, 16 THREAD WITH VANDAL RESISTANT HEX NUT AND STAINLESS STEEL WASHER.
4. NYLON PAD.
5. CONCRETE PAD.
6. F.G. – SEE PLANS FOR MATERIAL

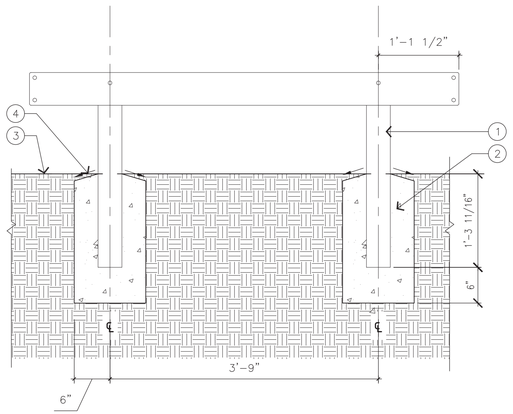
3 PICNIC TABLE - SURFACE MOUNT

1" = 1'-0"



LEGEND:

1. LANDSCAPE FORMS SHADOWLINE BENCH WITH 4" SQ POST SUPPORTS, PER MFGR.
2. CONCRETE FOOTING
3. F.S. / F.G. – SEE PLANS
4. SLOPE TOP OF FOOTING MIN. 1% AWAY FROM BENCH POST



2 SHADOWLINE BENCH MOUNTING

1" = 1'-0"

REVISIONS:

NO.	DATE	ITEM

ABALONE COVE SHORELINE PARK IMPROVEMENTS

CONSTRUCTION DETAILS

PROJECT:

SHEET TITLE:

MELÉNDREZ
James Ovlatt Building, 11th Floor
617 South Olive Street
Los Angeles, California 90014
f 213-673-4400
f 213-673-4410
www.melendrez.com

REGISTRATION:

LICENSED LANDSCAPE ARCHITECT
JENNIFER PACKER
No.4933
Signature
2-28-15
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: 1305101.00

SUBMITTAL DATE: 08/09/2013

PHASE: CONST. DOCS. (90%)

DESIGNED BY: AH

DRAWN BY: JM / TA

PLAN NO:

L-3.3

SHEET NO: 08 OF 16

SEE BELOW RIGHT FOR CONTINUATION

POC AT EXISTING WATER METER.

LOCATE CONTROLLER AND SOIL MOISTURE SENSOR MODULE IN BUILDING.

SEE ABOVE LEFT FOR CONTINUATION

MOISTURE SENSOR LOCATION - HARD WIRE TO CONTROLLER PER MANUFACTURER

STATION #
FLOW (GPM) — VALVE SIZE

FOR IRRIGATION LEGEND, NOTES AND DETAILS SEE SHEETS L–5.1, L–5.2, AND L–5.3

0' 10' 20' 40'
GRAPHIC SCALE:1"=20'

RPV

REVISIONS:

NO.	DATE	ITEM

ABALONE COVE SHORELINE PARK IMPROVEMENTS

IRRIGATION PLAN

PROJECT:

SHEET TITLE:

MELÉNDREZ
James Oviatt Building, 11th Floor
617 South Olive Street
Los Angeles, California 90014
T 213-673-4400
F 213-673-4410
www.melendrez.com

REGISTRATION:

LICENSED LANDSCAPE ARCHITECT
JENNIFER PACKER
No. 4933
Signature
2-28-15
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: 1305101.00

SUBMITTAL DATE: 07/19/2013

PHASE: CONST. DOCS. (50%)

DESIGNED BY: AH

DRAWN BY: JM / TA

PLAN NO:

L-4

SHEET NO: 09 OF 16

AB-1881 CALCULATIONS : MAXIMUM APPLIED WATER ALLOWANCE	
MAWA = Maximum Applied Water Allowance (GALLONS)	
MAWA = (ETo) x (0.62) x [(0.70 x LA) + (0.3 x SLA)]	
ETo = Reference Evapotranspiration (inches per year)	42.7
0.62 = Conversion Factor (to gallons per square foot)	0.62
0.70 = ET Adjustment Factor (70% of Reference ET)	0.70
LA = Total Landscaped Area (square feet)	30,479
SLA = Special Landscape Area	0
TOTAL MAWA	564,830.7

AB-1881 CALCULATIONS : ESTIMATED APPLIED WATER USE				
EAWU = Estimated Applied Water Use by Hydrozone (GALLONS)				
EAWU = (ETo) x (0.62) x [(PF) x (HA) / (IE) + (SLA)]				
ETo =	Reference ET (inches per year)			42.7
0.62 =	Conversion Factor (to gallons per square foot)			0.62
PF =	Plant Factor (Kc)			Hydrozone Specific
HA =	Hydrozone Area			Hydrozone Specific
IE =	Irrigation Efficiency			Hydrozone Specific
SLA =	Special Landscape Area			0
Hydrozone	PF	HA	IE	(PF) x (HA) / (IE)
Tree/Shrub/GC (Spray)	0.5	397	0.71	279.6
Tree/Shrub/GC (Rotator)	0.5	30,082	0.80	18,801.3
TOTAL AREA		30,479	Total	19,080.8
EAWU = (ETo) x (0.62) x [(TOTAL SUM OF PF x HA / IE) + (SLA)]				
TOTAL EAWU				505,145.8

PRESSURE LOSS CALCULATIONS		
THEORETICAL WORST CASE CONDITION		
MAXIMUM FLOW / HIGHEST ELEVATION		
EQUIPMENT	SIZE	LOSS
Service Line - Copper (50' Estimate)	1"	2.5
Water Meter	3/4"	2.6
Backflow Preventer (R/P Type)	1"	13.0
Master Control Valve	1"	1.5
Flow Sensor	1"	1.0
Sch 40 PVC Mainline - 800'	1 1/2"	4.6
Electric Control Valve	1"	3.0
Lateral Lines (10% Pressure Dif. Max.)	Misc.	3.0
SUBTOTAL PRESSURE LOSSES		31.2
MISC. LOSSES THROUGH SYSTEM	10%	3.1
Elevation Gain in Feet (Pressure Loss)	0	0.0
TOTAL PRESSURE LOSSES		34.3
Pressure Required at Sprinkler / Emission Device		30.0
TOTAL PRESSURE REQUIRED		64.3
Static Pressure Pressure at POC		75.0
RESIDUAL PRESSURE		10.7

IRRIGATION MAINTENANCE SCHEDULE

THE IRRIGATION MAINTENANCE SCHEDULE TASKS LISTED BELOW ARE INTENDED AS MINIMUM STANDARDS AND MORE FREQUENT ATTENTION MAY BE REQUIRED DEPENDING ON THE PARTICULAR SITE CONDITIONS.

FREQUENCY	MAINTENANCE TASK
QUARTERLY	CONTROLLER CABINET - OPEN CABINET AND CLEAN OUT DEBRIS AND REPLACE BATTERY AS NECESSARY. CHECK WIRING AND REPAIR AS NEEDED AND CHECK CLOCK AND RESET IF NECESSARY.
MONTHLY	IRRIGATION SCHEDULE - ADJUST SCHEDULE FOR SEASONAL VARIATIONS AND OTHER CONDITIONS WHICH MAY AFFECT THE AMOUNT OF WATER NEEDED TO MAINTAIN PLANT HEALTH. ADJUST AS NECESSARY.
QUARTERLY	POC - VISUALLY INSPECT COMPONENTS FOR LEAKS, PRESSURE SETTINGS, SETTLEMENT OR OTHER DAMAGE AFFECTING THE OPERATION OF A COMPONENT. REPAIR AS NEEDED.
QUARTERLY	REMOTE CONTROL VALVES, ISOLATION VALVES AND QUICK COUPLER VALVES - VISUALLY INSPECT FOR LEAKS, SETTLEMENT, WIRE CONNECTIONS AND PRESSURE SETTINGS. REPAIR OR ADJUST AS NEEDED.
QUARTERLY	MAINLINE AND LATERALS - VISUALLY INSPECT FOR LEAKS OR SETTLEMENT OF TRENCHES. REPAIR AS NEEDED.
WEEKLY	SPRINKLERS - VISUALLY CHECK FOR ANY BROKEN, MISALIGNED OR CLOGGED HEADS, HEADS WITH INCORRECT ARC, INADEQUATE COVERAGE OR OVERSPRAY AND LOW HEAD DRAINAGE. REPAIR AS NEEDED.
MONTHLY	FILTERS AND STRAINERS - VISUALLY CHECK FOR LEAKS, BROKEN FITTINGS. CLEAN AND FLUSH SCREENS.

HYDROZONE INFORMATION MATRIX

Station #	Area (sq. ft.)	% of Total Area	Plant Type	Water Use (WUCOLS)	Irrigation Type	Zone Exposure	Zone Flow (gpm)	Precipitation Rate (in/hr)	Zone Pressure
1	1,324	4.3%	Shrubs	Medium	MP Rotator	Full Sun	12	0.40	30 psi
2	1,562	5.1%	Shrubs	Medium	MP Rotator	Full Sun	13	0.40	30 psi
3	1,274	4.2%	Shrubs	Medium	MP Rotator	Full Sun	9	0.40	30 psi
4	1,472	4.8%	Shrubs	Medium	MP Rotator	Full Sun	10	0.40	30 psi
5	2,006	6.6%	Shrubs	Medium	MP Rotator	Full Sun	12	0.40	30 psi
6	1,389	4.6%	Shrubs	Medium	MP Rotator	Full Sun	9	0.40	30 psi
7	906	3.0%	Shrubs	Medium	MP Rotator	Full Sun	7	0.40	30 psi
8	1,101	3.6%	Shrubs	Medium	MP Rotator	Full Sun	9	0.40	30 psi
9	397	1.3%	Shrubs	Medium	Spray	Full Sun	9	1.50	30 psi
10	1,208	4.0%	Shrubs	Medium	MP Rotator	Full Sun	11	0.40	30 psi
11	1,413	4.6%	Shrubs	Medium	MP Rotator	Full Sun	10	0.40	30 psi
12	1,613	5.3%	Shrubs	Medium	MP Rotator	Full Sun	11	0.40	30 psi
13	1,295	4.2%	Shrubs	Medium	MP Rotator	Full Sun	10	0.40	30 psi
14	1,673	5.5%	Shrubs	Medium	MP Rotator	Full Sun	12	0.40	30 psi
15	1,181	3.9%	Shrubs	Medium	MP Rotator	Full Sun	9	0.40	30 psi
16	1,647	5.4%	Shrubs	Medium	MP Rotator	Full Sun	12	0.40	30 psi
17	1,708	5.6%	Shrubs	Medium	MP Rotator	Full Sun	13	0.40	30 psi
18	1,831	6.0%	Shrubs	Medium	MP Rotator	Full Sun	14	0.40	30 psi
19	849	2.8%	Shrubs	Medium	MP Rotator	Full Sun	7	0.40	30 psi
20	1,643	5.4%	Shrubs	Medium	MP Rotator	Full Sun	13	0.40	30 psi
21	1,680	5.5%	Shrubs	Medium	MP Rotator	Full Sun	13	0.40	30 psi
22	1,307	4.3%	Shrubs	Medium	MP Rotator	Full Sun	11	0.40	30 psi
23	0	Supplement	Trees	Medium	Bubbler	Full Sun	3	3.00	30 psi
24	Spare Station								
	30,479	TOTAL AREA (sq. ft.)							

IRRIGATION SCHEDULE GUIDELINE - PLANT ESTABLISHMENT PERIOD

HYDRO ZONE	HYDROZONE DATA			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
			Days per Month =	31	28	31	30	31	30	31	31	30	31	30	31	365
			Historic ET =	2.2	2.4	3.3	3.8	4.5	4.7	5.4	4.8	4.4	2.8	2.4	2.0	42.7
SHRUB SPRAY	Plant Kc =	0.50	Total Monthly Run Time	62	68	93	108	127	133	153	136	124	79	68	57	
	Soil Type =	SiltyLoam	Irrigation Days per Month	6	6	9	10	12	12	14	12	11	7	6	5	
	Root Depth =	2	Station Run Time per ID	11	12	11	11	11	12	11	12	12	12	12	12	
	Precip. Rate =	1.50	Cycles per Irrigation Day	2	2	2	2	2	2	2	2	2	2	2	2	
	Irr. Eff. =	0.71	Station Run Time per Cycle	6	6	6	6	6	6	6	6	6	6	6	6	
SHRUB ROTATOR	Plant Kc =	0.50	Total Monthly Run Time	207	225	310	357	422	441	507	450	413	263	225	188	
	Soil Type =	SiltyLoam	Irrigation Days per Month	6	6	9	10	12	12	14	12	11	7	6	5	
	Root Depth =	2	Station Run Time per ID	35	38	35	36	36	37	37	38	38	38	38	38	
	Precip. Rate =	0.40	Cycles per Irrigation Day	1	2	1	1	1	1	1	2	2	2	2	2	
	Irr. Eff. =	0.80	Station Run Time per Cycle	35	19	35	36	36	37	37	19	19	19	19	19	
TREE BUBBLER	Plant Kc =	0.50	Total Monthly Run Time	25	27	37	43	50	53	60	54	49	32	27	23	
	Soil Type =	SiltyLoam	Irrigation Days per Month	2	2	3	4	4	4	5	4	4	3	2	2	
	Root Depth =	6	Station Run Time per ID	13	14	13	11	13	14	12	14	13	11	14	12	
	Precip. Rate =	3.00	Cycles per Irrigation Day	3	3	3	3	3	3	3	3	3	3	3	3	
	Irr. Eff. =	0.90	Station Run Time per Cycle	5	5	5	4	5	5	4	5	5	4	5	4	

IRRIGATION SCHEDULE GUIDELINE - ESTABLISHED PLANTS

HYDRO ZONE	HYDROZONE DATA			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
			Days per Month =	31	28	31	30	31	30	31	31	30	31	30	31	365
			Historic ET =	2.2	2.4	3.3	3.8	4.5	4.7	5.4	4.8	4.4	2.8	2.4	2.0	42.7
SHRUB SPRAY	Plant Kc =	0.50	Total Monthly Run Time	62	68	93	108	127	133	153	136	124	79	68	57	
	Soil Type =	SiltyLoam	Irrigation Days per Month	2	2	3	3	3	3	4	3	3	2	2	2	
	Root Depth =	8	Station Run Time per ID	31	34	31	36	43	45	39	46	42	40	34	29	
	Precip. Rate =	1.50	Cycles per Irrigation Day	4	4	4	4	5	5	4	5	5	4	4	3	
	Irr. Eff. =	0.71	Station Run Time per Cycle	8	9	8	9	9	9	10	10	9	10	9	10	
SHRUB ROTATOR	Plant Kc =	0.50	Total Monthly Run Time	207	225	310	357	422	441	507	450	413	263	225	188	
	Soil Type =	SiltyLoam	Irrigation Days per Month	2	2	3	3	3	3	4	3	3	2	2	2	
	Root Depth =	8	Station Run Time per ID	104	113	104	119	141	147	127	150	138	132	113	94	
	Precip. Rate =	0.40	Cycles per Irrigation Day	3	4	3	4	4	4	4	4	4	4	4	3	
	Irr. Eff. =	0.80	Station Run Time per Cycle	35	29	35	30	36	37	32	38	35	33	29	32	
TREE BUBBLER	Plant Kc =	0.50	Total Monthly Run Time	25	27	37	43	50	53	60	54	49	32	27	23	
	Soil Type =	SiltyLoam	Irrigation Days per Month	1	1	1	1	1	1	2	1	1	1	1	1	
	Root Depth =	24	Station Run Time per ID	25	27	37	43	50	53	30	54	49	32	27	23	
	Precip. Rate =	3.00	Cycles per Irrigation Day	5	6	8	9	10	11	6	11	10	7	6	5	
	Irr. Eff. =	0.90	Station Run Time per Cycle	5	5	5	5	5	5	5	5	5	5	5	5	

IRRIGATION SCHEDULE NOTES
IRRIGATION SCHEDULE IS BASED ON THE HYDROZONE DATA LISTED IN THE CHARS ABOVE (HISTORICAL ET, ESTIMATED CROP COEFFICIENT FROM WUCOLS III, ESTIMATED SOIL TYPE, ESTIMATED ROOT DEPTH, CALCULATED PRECIPITATION RATE, ESTIMATED IRRIGATION EFFICIENCY, AND A MANAGED ALLOWABLE DEPLETION OF 50%. THIS SCHEDULE WILL NEED TO BE FINE-TUNED AND ADJUSTED BASED ON ACTUAL SITE CONDITIONS.

SPRINKLER LEGEND

SYMBOL	MANUFACTURER / MODEL NUMBER	NOZZLE	RAD	PSI	FLOW - GPM Q	T	H	210°	TQ	F	DETAIL
SHRUB HI-POP HEADS WITH HUNTER MP ROTATOR NOZZLE, CHECK VALVE, AND PRESSURE REGULATION											
	HUNTER PROS-12-PRS30-CV	MPCORNER	8'-12'	30	0.17						A
	HUNTER PROS-12-PRS30-CV	MP1000-90-210 MP1000-210-270	8'-12'	30	0.16	0.21	0.32	0.37	0.48		A
	HUNTER PROS-12-PRS30-CV	MP1000-360	8'-12'	30						0.65	A
	HUNTER PROS-12-PRS30-CV	MP2000-90-210 MP2000-210-270	13'-17'	30	0.33	0.42	0.63	0.74	0.95		A
	HUNTER PROS-12-PRS30-CV	MP2000-360	13'-17'	30						1.27	A
	HUNTER PROS-12-PRS30-CV	MP3000-90-210 MP3000-210-270	18'-27'	30	0.74	1.05	1.58	1.84	2.37		A
	HUNTER PROS-12-PRS30-CV	MP3000-360	18'-27'	30						3.15	A
SHRUB HI-POP SPRAY HEADS WITH CHECK VALVE, PRESSURE REGULATION, AND RAIN BIRD NOZZLES (U-SERIES WHERE AVAILABLE)											
	HUNTER PROS-12-PRS30-CV-5' SERIES	Q/T/H/F	5'	30	0.10	0.13	0.20			0.41	A
	HUNTER PROS-12-PRS30-CV	6-VAN	6'	30	0.37	0.40	0.60	0.80	1.10		A
	HUNTER PROS-12-PRS30-CV-8' SERIES	Q/T/H/F	8'	30	0.26	0.35	0.52			1.05	A
	HUNTER PROS-12-PRS30-CV	8-VAN	8'	30	0.72	0.79	1.19	1.43	1.55		A
	HUNTER PROS-12-PRS30-CV-10' SERIES	Q/T/H/F	10'	30	0.41	0.55	0.82			1.64	A
	HUNTER PROS-12-PRS30-CV	10-VAN	10'	30	0.75	0.97	1.45	1.93	2.10		A
	HUNTER PROS-12-PRS30-CV-12' SERIES	Q/T/H/TT/TQ/F	12'	30	0.65	0.87	1.30	1.74	1.95	2.60	A
	HUNTER PROS-12-PRS30-CV	12-VAN	12'	30	0.59	0.79	1.18	1.58	1.77		A
	HUNTER PROS-12-PRS30-CV-15' SERIES	Q/T/H/TT/TQ/F	15'	30	0.92	1.23	1.85	2.48	2.78	3.70	A
	HUNTER PROS-12-PRS30-CV	15-VAN	15'	30	0.92	1.23	1.85	2.47	2.78		A
TREE BUBBLERS											
	RAIN BIRD RWS-M-B-C-1402 SERIES	1402 BUBBLER	N/A	30	1.0 (2 x 0.50 PER TREE)						B
NOTE: THE SINGLE SYMBOL ON THE PLANS REPRESENTS TWO (2) ROOT WATERING SYSTEM BUBBLERS FOR EACH NEW TREE.											

EQUIPMENT LEGEND

SYMBOL	MANUFACTURER / MODEL NUMBER	SIZE	DETAIL
M	EXISTING WATER METER - SEE POINT OF CONNECTION NOTE ON PLANS	3/4"	N/A
BP	FEBCO 825YA SERIES REDUCED PRESSURE BACKFLOW PREVENTER - INSTALL IN STRONG BOX SBBC-30SS STAINLESS STEEL ENCLOSURE WITH REGULATOR AND STRAINER (SEE BELOW)	1"	C
NOT SHOWN	WILKINS 500 SERIES PRESSURE REGULATING VALVE - INSTALL WITH BACKFLOW DEVICE	1"	C
NOT SHOWN	WILKINS YBP-80 WYE-STRAINER WITH 80-MESH STAINLESS STEEL SCREEN	1"	C
MV	SUPERIOR 3000 SERIES NORMALLY CLOSED BRASS MASTER CONTROL VALVE	1"	D
FS	HUNTER HFS-100 SERIES FLOW SENSOR IN PLASTIC TEE	1"	E
SW	SPARE WIRE STUB OUT EXTRA CONTROL WIRES - LOCATE WIRES IN STANDARD VALVE BOX	2 x 14 GA UF	F
	NIBCO T-580-70 TWO-PIECE BRONZE BALL VALVE - FULL PORT	LINE SIZE	G
	HUNTER HQ-44LRC SERIES QUICK COUPLING VALVE WITH LOCKING VINYL COVER	1"	H
	HUNTER ICV-101G SERIES ELECTRIC CONTROL VALVE	1"	I
	SCH 40 PVC IRRIGATION PRESSURE MAINLINE (1 1/2" AND SMALLER) - 18" MINIMUM COVER CLASS 315 PVC IRRIGATION MAINLINE (2" AND LARGER) - 18" MINIMUM COVER	PLAN SIZE	J
	CLASS 200 PVC NON-PRESSURE LATERAL LINE - 12" MINIMUM COVER	PLAN SIZE	J
	SCH 40 PVC PIPE SLEEVING - EXTEND 6" BEYOND EDGE OF HARDSCAPE - 18" MINIMUM COVER	PLAN SIZE	K
	SCH 40 PVC WIRE SLEEVING - EXTEND 6" BEYOND EDGE OF HARDSCAPE - 18" MINIMUM COVER	PLAN SIZE	K
NOT SHOWN	UF DIRECT BURIAL CONTROL WIRE WITH WATERPROOF CONNECTIONS	14 GA UF	L
C	HUNTER IC-600-PS 'ICORE' AUTOMATIC MODULAR CONTROLLER WITH (3) ICM-600 MODULES WALL MOUNT PER PLAN - INSTALL WITH ET SENSOR FOR 'SMART' OPERATION (SEE BELOW)	24 STATION	M
MS	IRROMETER 'WATERMARK' WEM SOIL MOISTURE SENSOR - INCLUDE WEM CONTROL MODULE AND TWO (2) WATERMARK SOIL MOISTURE SENSORS - INSTALL PER MANUFACTURER	N/A	N / O

PIPE SIZING
3/4" PIPE
1" PIPE
1 1/4" PIPE
1 1/2" PIPE
2" PIPE
2 1/2" PIPE
3" PIPE
4" PIPE
6" PIPE
8" PIPE

SCH 40 PVC SLEEVING CHART		
1 1/4" SLEEVE	1-8 WIRES	1/2" PIPE
1 1/2" SLEEVE	9-16 WIRES	3/4" PIPE
2" SLEEVE	17-26 WIRES	1" PIPE
2 1/2" SLEEVE	27-38 WIRES	1 1/4" PIPE
3" SLEEVE	39-54 WIRES	1 1/2" PIPE
4" SLEEVE	55-100 WIRES	2" PIPE
6" SLEEVE	100+ WIRES	3" PIPE
8" SLEEVE	N/A	4" PIPE
12" SLEEVE	N/A	6" PIPE

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POINT OF CONNECTION
MAKE IRRIGATION POINT OF CONNECTION INTO EXISTING SITE WATER METER. VERIFY EXACT LOCATION IN THE FIELD AND ADJUST AS NECESSARY. INSTALL BALL VALVE AT POC FOR IRRIGATION SYSTEM ISOLATION. INSTALL BACKFLOW PREVENTER IMMEDIATELY DOWNSTREAM OF BALL VALVE PER ALL LOCAL CODES. INSTALL IN ENCLOSURE AS CALLED FOR IN THE IRRIGATION LEGEND. FINAL BACKFLOW PREVENTER LOCATION TO BE APPROVED IN THE FIELD BY THE OWNER OR AUTHORIZED REPRESENTATIVE. PIPING BETWEEN THE WATER METER AND THE BACKFLOW PREVENTER TO BE TYPE 'K' COPPER, SIZED THE SAME AS THE MAINLINE SIZE DOWNSTREAM OF THE POC EQUIPMENT. INSTALL PRESSURE REGULATOR AND WYE-STRAINER WITH BACKFLOW DEVICE (SET TO 75 PSI). INSTALL MASTER VALVE DOWNSTREAM OF BACKFLOW DEVICE AND WIRE TO CONTROLLER PER MANUFACTURER'S DIRECTIONS. INSTALL FLOW SENSOR DOWNSTREAM OF MASTER VALVE AND WIRE TO CONTROLLER PER MANUFACTURER'S DIRECTIONS. MAXIMUM DEMAND IS 14 GPM. STATIC PRESSURE AT METER IS IN EXCESS OF 100 PSI (INFORMATION FOR GOLDEN STATE WATER COMPANY). CONTRACTOR SHALL VERIFY STATIC PRESSURE AT METER PRIOR TO START OF WORK AND NOTIFY THE LANDSCAPE ARCHITECT IN WRITING IMMEDIATELY IF A DISCREPANCY IS FOUND. DO NOT PROCEED WITH ANY IRRIGATION INSTALLATION WORK UNTIL ANY AND ALL WATER SUPPLY AND PRESSURE ISSUES HAVE BEEN RESOLVED.

CONTROLLER
INSTALL IRRIGATION CONTROLLER IN BUILDING AS SHOWN ON THE PLANS. FINAL CONTROLLER LOCATION TO BE APPROVED IN THE FIELD BY THE OWNER OR AUTHORIZED REPRESENTATIVE. THE IRRIGATION CONTRACTOR SHALL COORDINATE 120V AC POWER TO THE FINAL CONTROLLER LOCATION WITH GENERAL CONTRACTOR AND/OR ELECTRICAL CONTRACTOR AS NECESSARY, AND PAY ALL ASSOCIATED COSTS. THE IRRIGATION CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS PER LOCAL CODES. MOUNT, GROUND, AND WIRE ALL THE CONTROL EQUIPMENT PER THE MANUFACTURER'S DIRECTIONS, THESE PLANS, AND PER ALL LOCAL CODES.

SLEEVING
MAINLINE AND VALVES SHOWN OUTSIDE OF PLANTED AREAS FOR CLARITY ONLY. INSTALL ALL IRRIGATION EQUIPMENT IN ADJACENT PLANTED AREAS EXCEPT WHERE SLEEVING IS SHOWN ON THE PLANS. ALL PIPES AND WIRES THAT MUST RUN UNDER HARDSCAPE TO BE SLEEVED IN SCH 40 PVC SLEEVES ACCORDING TO THE SLEEVING CHART.

TREE BUBBLERS
TREE ROOT WATERING SYSTEM BUBBLERS TO BE PROVIDED TO ALL NEW TREES (2 EACH). ADJUST FINAL LOCATION OF TREE BUBBLERS TO MATCH FINAL TREE PLANTING IN THE FIELD. RELOCATE, ADD, AND/OR REMOVE BUBBLERS AS NECESSARY.

SOIL MOISTURE SENSING SYSTEM
THIS SYSTEM IS DESIGNED TO OPERATE WITH A SOIL MOISTURE SENSING SYSTEM. THE DELICATE NATURE OF THIS PROJECT AND LOCATION WILL REQUIRE DILIGENT WATER MANAGEMENT TO PREVENT OVER SATURATION OF THE SOIL. THE SOIL MOISTURE SENSING SYSTEM IS TO AID IN THIS. INSTALL THE SENSORS PER THE MANUFACTURER'S DIRECTIONS. MOUNT AND WIRE THE SENSOR CONTROL MODULE PER THE MANUFACTURER'S DIRECTIONS. ADJUST THE SENSOR AS NECESSARY FOR ADEQUATE PLANT ESTABLISHMENT WITH NO RUN-OFF OR SOIL SATURATION.

POINT OF CONNECTION INFORMATION
WATER TYPE - POTABLE (75 PSI) MASTER VALVE - 1" METER SIZE - 3/4" FLOW SENSOR - 1" BACKFLOW PREVENTER SIZE - 1" NUMBER OF VALVES - 23 PRESSURE REGULATOR - 1" CONTROLLER SIZE - 24 STATION

RPV

REVISIONS:

NO.	DATE	ITEM

PROJECT: ABALONE COVE SHORELINE PARK IMPROVEMENTS

SHEET TITLE: IRRIGATION LEGENDS, NOTES, AND CALCS

MELÉNDREZ
James Oviatt Building, 11th Floor
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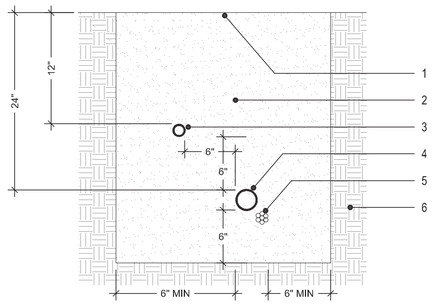
REGISTRATION:
LICENSED LANDSCAPE ARCHITECT
JENNIFER PACKER
No. 4933
Signature
2-28-15
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: 1305101.00
SUBMITTAL DATE: 07/19/2013
PHASE: CONST. DOCS. (50%)
DESIGNED BY: AH
DRAWN BY: JM / TA
PLAN NO:

L-5.1

SHEET NO: 10 OF 16

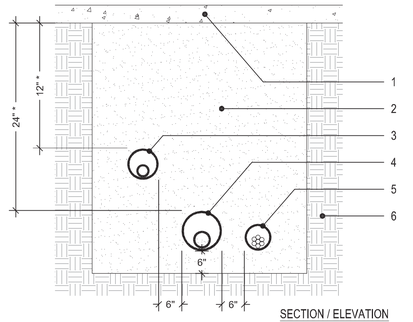


SECTION / ELEVATION

1. FINISH GRADE
2. CLEAN BACKFILL WITH ALL ROCKS 1" OR LARGER REMOVED - 90% COMPACTION REQUIRED - SEE SPECS
3. NON-PRESSURE LATERAL LINE PER LEGEND (SNAKE IN TRENCH)
4. PRESSURE MAINLINE PER LEGEND (SNAKE IN TRENCH)
5. CONTROL WIRES - INSTALL BELOW PRESSURE MAINLINE
6. UNDISTURBED NATIVE SOIL

NOTES:
BUNDLE AND TAPE WIRES AT 10' O.C. PIGTAIL AND LOOP WIRES AT ALL CHANGES IN DIRECTION. SPLICING OF WIRE RUNS IS NOT PERMITTED WITHOUT PRIOR APPROVAL FROM OWNER AND LANDSCAPE ARCHITECT. RUN CONTROL WIRES IN SAME TRENCH AS MAINLINE WHERE POSSIBLE. INSTALL 12"x12"x12" CONCRETE THRUST BLOCKS AT ALL CHANGES IN DIRECTION OF PRESSURE MAINLINE (45'S, 90'S, TEES, ETC.) AND AT ALL TERMINAL POINTS.

TRENCHING J



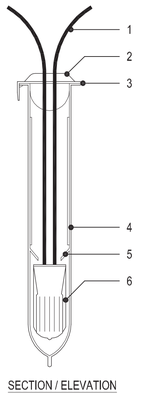
SECTION / ELEVATION

1. HARDSCAPING AND AGGREGATE (TYPICAL)
2. CLEAN SAND BACKFILL - COMPACT TO MATCH DENSITY OF NATIVE SOIL
3. LATERAL LINE IN SCH 40 PVC SLEEVE
4. PRESSURE MAINLINE IN SCH 40 PVC SLEEVE
5. CONTROL WIRES IN SCH 40 PVC SLEEVE
6. UNDISTURBED NATIVE SOIL

NOTES:
SIZE ALL SLEEVES PER THE IRRIGATION PLANS. EXTEND SLEEVES 6" MINIMUM BEYOND EDGE OF HARDSCAPE (AT EACH END) INTO THE PLANTING AREAS.

* SLEEVING UNDER ALL VEHICULAR ACCESS WAYS TO HAVE 36" MINIMUM COVER FROM TOP OF SLEEVE TO BOTTOM OF AGGREGATE BASE.

SLEEVING K



SECTION / ELEVATION

1. LOW VOLTAGE WIRES - 3 MAXIMUM
2. WIRES PASS THROUGH GROOVES IN TUBE LID TO ALLOW LID TO CLOSE
3. CLOSE TUBE LID AFTER WIRE IS INSERTED INTO TUBE
4. POLY TUBE PRE-FILLED WITH WATERPROOF GEL
5. LOCK TABS PREVENT WIRE REMOVAL ONCE CONNECTOR IS INSERTED
6. SCOTCHLOK ELECTRICAL SPRING CONNECTOR - WIRES SHALL BE PRE-STRIPPED OF 1/2" OF THE INSULATION PRIOR TO INSERTION INTO THE CONNECTOR - TWIST CONNECTOR ONTO WIRES TO SEAT FIRMLY

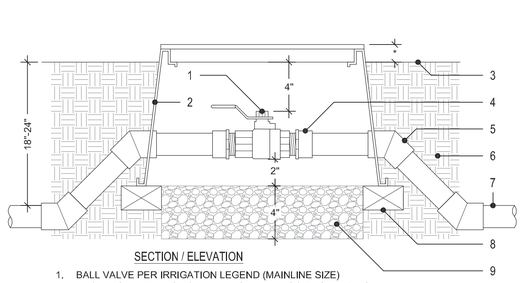
INSERT SCOTCHLOK CONNECTOR AND WIRES INTO TUBE UNTIL THE CONNECTOR PASSES THE LOCK TABS.

NOTES:
WIRE CONNECTOR SHALL BE A 3M DBY DIRECT BURY SPLICE KIT.

KIT SHALL INCLUDE A SCOTCHLOK SPRING CONNECTOR, A POLYPROPYLENE TUBE AND A WATERPROOF SEALING GEL. TUBE SHALL BE SUPPLIED PRE-FILLED WITH GEL.

DIRECT BURY SPLICE KIT SHALL BE USED TO ELECTRICALLY CONNECT 2-3 #14 OR 2 #12 PRE-STRIPPED COPPER WIRES. LARGER OR GREATER QUANTITIES OF WIRES SHALL REQUIRE A LARGER APPROVED WIRE CONNECTOR.

WATERPROOF WIRE CONNECTOR L

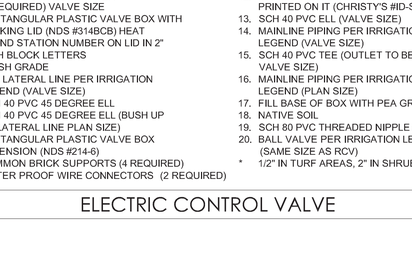


SECTION / ELEVATION

1. BALL VALVE PER IRRIGATION LEGEND (MAINLINE SIZE)
2. RECTANGULAR PLASTIC VALVE BOX WITH LOCKING LID (NDS #314BCB) HEAT BRAND "BV" ON LID IN 2" HIGH BLOCK LETTERS
3. FINISH GRADE
4. SCH 40 PVC MALE ADAPTER (2 REQUIRED)
5. SCH 40 PVC 45 DEGREE ELL (4 REQUIRED)
6. NATIVE SOIL
7. MAINLINE PIPING PER IRRIGATION LEGEND
8. COMMON BRICK SUPPORTS (4 REQUIRED)
9. FILL BASE OF BOX WITH PEA GRAVEL
* 1/2" IN TURF AREAS, 2" IN SHRUB AREAS

NOTES:
OFF-SET VALVE BOX AROUND BALL VALVE TO ALLOW SPACE FOR FULL MOVEMENT OF THE BALL VALVE HANDLE.

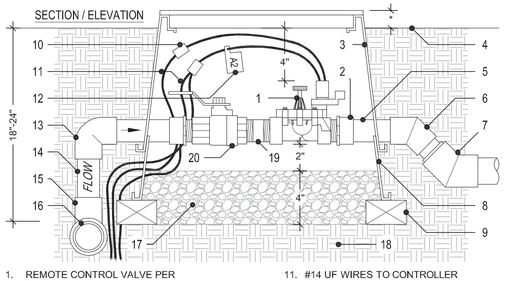
BALL VALVE G



SECTION / ELEVATION

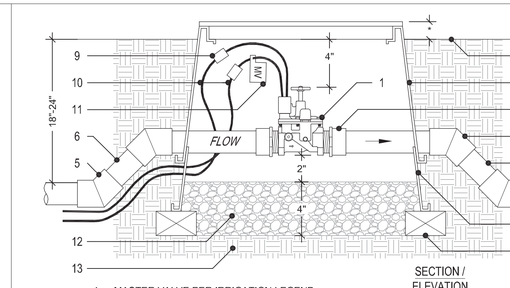
1. QUICK COUPLING VALVE PER IRRIGATION LEGEND
2. #4x36" REBAR SUPPORT STAKE (2 REQUIRED)
3. STAINLESS STEEL CLAMP (2 REQUIRED)
4. FINISH GRADE
5. 10" ROUND PLASTIC VALVE BOX WITH LOCKING LID (NDS #312BCB) HEAT BRAND "QC" ON LID IN 2" HIGH BLOCK LETTERS
6. 1"x6" SCH 80 PVC NIPPLE
7. 1" SCH 40 PVC STREET ELL (3 REQUIRED)
8. COMMON BRICK SUPPORTS (3 REQUIRED)
9. 1"x12" SCH 80 PVC NIPPLE
10. 1" SCH 40 PVC ELL (SxT)
11. 1" SCH 40 PVC MAINLINE (12" MINIMUM LENGTH)
12. SCH 40 PVC MAINLINE FITTING (TEE OR ELL) WITH 1" SLIP OUTLET
13. MAINLINE PIPING PER IRRIGATION LEGEND (PLAN SIZE)
14. NATIVE SOIL
15. FILL BASE OF BOX WITH PEA GRAVEL
* 1/2" IN TURF AREAS, 2" IN SHRUB AREAS

QUICK COUPLING VALVE H



1. REMOTE CONTROL VALVE PER IRRIGATION LEGEND
2. SCH 40 PVC MALE ADAPTER (2 REQUIRED) VALVE SIZE
3. RECTANGULAR PLASTIC VALVE BOX WITH LOCKING LID (NDS #314BCB) HEAT BRAND STATION NUMBER ON LID IN 2" HIGH BLOCK LETTERS
4. FINISH GRADE
5. PVC LATERAL LINE PER IRRIGATION LEGEND (VALVE SIZE)
6. SCH 40 PVC 45 DEGREE ELL
7. SCH 40 PVC 45 DEGREE ELL (BUSH UP TO LATERAL LINE PLAN SIZE)
8. RECTANGULAR PLASTIC VALVE BOX EXTENSION (NDS #214-6)
9. COMMON BRICK SUPPORTS (4 REQUIRED)
10. WATER PROOF WIRE CONNECTORS (2 REQUIRED)
11. #14 UF WIRES TO CONTROLLER (COLOR CODED)
12. I.D. TAG WITH STATION NUMBER PRINTED ON IT (CHRISTY'S #ID-STD-Y1)
13. SCH 40 PVC ELL (VALVE SIZE)
14. MAINLINE PIPING PER IRRIGATION LEGEND (VALVE SIZE)
15. SCH 40 PVC TEE (OUTLET TO BE VALVE SIZE)
16. MAINLINE PIPING PER IRRIGATION LEGEND (PLAN SIZE)
17. FILL BASE OF BOX WITH PEA GRAVEL
18. NATIVE SOIL
19. SCH 80 PVC THREADED NIPPLE (3")
20. BALL VALVE PER IRRIGATION LEGEND (SAME SIZE AS RCV)
* 1/2" IN TURF AREAS, 2" IN SHRUB AREAS

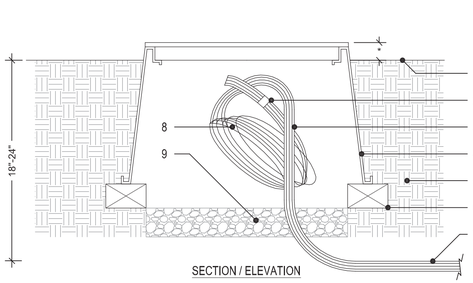
ELECTRIC CONTROL VALVE I



SECTION / ELEVATION

1. MASTER VALVE PER IRRIGATION LEGEND
2. FINISH GRADE
3. RECTANGULAR PLASTIC VALVE BOX WITH LOCKING LID (NDS #314BCB) HEAT BRAND "MV" ON LID IN 2" HIGH BLOCK LETTERS
4. SCH 40 PVC MALE ADAPTER (2 REQUIRED) USE REDUCING ADAPTERS WHERE MAINLINE IS LARGER THAN VALVE
5. SCH 40 PVC 45 DEGREE ELL (4 REQUIRED)
6. MAINLINE PIPING PER IRRIGATION LEGEND (PLAN SIZE)
7. RECTANGULAR PLASTIC VALVE BOX EXTENSION (NDS #214-6)
8. COMMON BRICK SUPPORTS (4 REQUIRED)
9. WATERPROOF WIRE CONNECTORS (2 REQUIRED)
10. #14 UF WIRES TO CONTROLLER (COLOR CODE DIFFERENTLY THAN COMMON WIRE, CONTROL WIRES, AND FLOW SENSOR WIRES)
11. I.D. TAG WITH "MV" PRINTED ON IT (CHRISTY'S #ID-STD-Y1)
12. FILL BASE OF BOX WITH PEA GRAVEL
13. NATIVE SOIL
* 1/2" IN TURF AREAS, 2" IN SHRUB AREAS

MASTER CONTROL VALVE D



SECTION / ELEVATION

1. FLOW SENSOR PER IRRIGATION LEGEND
2. UF WIRES TO CONTROLLER PER MANUFACTURER (COLOR CODE DIFFERENTLY THAN COMMON WIRE, CONTROL WIRES, AND MASTER VALVE WIRES)
3. WATERPROOF WIRE CONNECTORS (2 REQUIRED)
4. FINISH GRADE
5. RECTANGULAR PLASTIC VALVE BOX WITH LOCKING LID (NDS #314BCB) HEAT BRAND "FS" ON LID IN 2" HIGH BLOCK LETTERS
6. MAINLINE PIPING PER IRRIGATION LEGEND (SENSOR SIZE)
7. RECTANGULAR PLASTIC VALVE BOX EXTENSION (NDS #214-6)
8. COMMON BRICK SUPPORTS (4 REQUIRED)
9. FILL BASE OF BOX WITH PEA GRAVEL
10. NATIVE SOIL
* 1/2" IN TURF AREAS, 2" IN SHRUB AREAS

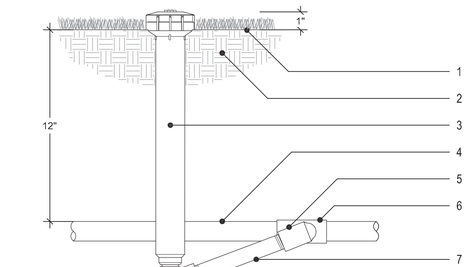
FLOW SENSOR E

SECTION / ELEVATION

1. FINISH GRADE
2. TAPE END OF WIRES TOGETHER WITH ELECTRICIANS TAPE
3. CONTROL WIRES / COMMON WIRES PER IRRIGATION LEGEND
4. RECTANGULAR PLASTIC VALVE BOX WITH LOCKING LID (NDS #314BCB) HEAT BRAND "SW" ON LID IN 2" HIGH BLOCK LETTERS
5. NATIVE SOIL
6. COMMON BRICK SUPPORTS (4 REQUIRED)
7. WIRES TO / FROM LANDSCAPED AREAS
8. COIL WIRES IN BOX - MINIMUM 36" COIL
9. FILL BASE OF BOX WITH PEA GRAVEL - 2 CU. FT. MIN.
* 1/2" IN TURF AREAS, 2" IN SHRUB AREAS

NOTES:
WIRE SPLICES ARE ONLY ALLOWED WITH PRE APPROVAL FROM LANDSCAPE ARCHITECT AND / OR OWNER. ALL CONTROL WIRE SPLICES SHALL BE INSTALLED IN PULL BOXES. ALL SPLICES SHALL BE MADE WITH WATERPROOF WIRE CONNECTORS.

SPARE WIRE STUB-OUT F

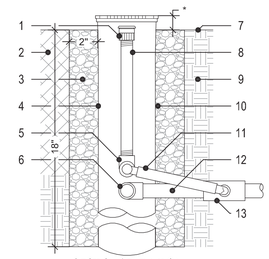


SECTION / ELEVATION

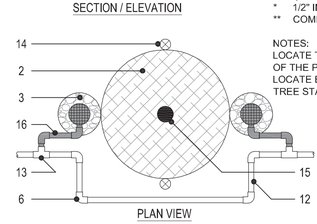
1. FINISH GRADE
2. NATIVE SOIL / BACKFILL PER SPECIFICATIONS
3. 12" HI-POP SPRAY HEAD & NOZZLE PER LEGEND
4. LATERAL LINE PIPING PER LEGEND
5. 1/2" MARLEX STREET ELL
6. SCH 40 PVC LATERAL LINE FITTING WITH 1/2" FEMALE THREADED OUTLET
7. 1/2"x12" MIN. SCH 80 PVC THREADED NIPPLE
8. 1/2" SCH 40 PVC STREET ELL TxT
9. 1/2" MARLEX STREET ELL

NOTES:
USE TEFLON TAPE ON ALL PVC TO PVC CONNECTIONS; NO PIPE DOPE ALLOWED. SET PERIMETER HEADS 4"-6" FROM CURBS AND WALKS AND 6"-12" FROM VERTICAL OBJECTS SUCH AS FENCES AND WALLS, ETC. ONLY USE BOTTOM INLET OF HEAD.

SHRUB HI-POP SPRAY / ROTARY SPRINKLER HEAD A



SECTION / ELEVATION

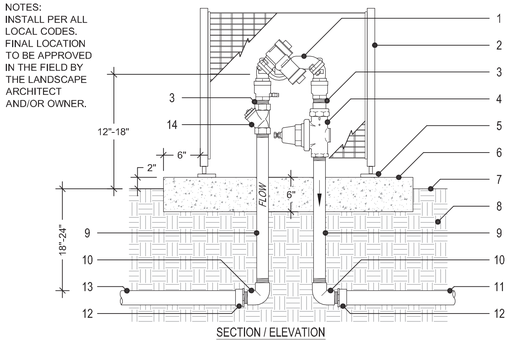


PLAN VIEW

1. ** RAIN BIRD 1402 BUBBLER
2. ROOTBALL OF TREE
3. 2" OF PEA GRAVEL AROUND RWS
4. ** 4" BASKET WEAVE CANISTER
5. ** 1/2" ELL
6. SCH 40 PVC ELL (LATERAL LINE SIZE)
7. FINISH GRADE
8. ** SCH 80 PVC NIPPLE
9. NATIVE SOIL
10. USE RWS-SOCK AROUND RWS IN SANDY SOILS
11. ** 12" SWING ASSEMBLY
12. LATERAL LINE PIPING PER IRRIGATION LEGEND (PLAN SIZE)
13. SCH 40 PVC LATERAL LINE FITTING WITH 1/2" THREADED OUTLET
14. TREE STAKE PER PLANTING PLAN
15. TRUNK OF TREE
16. RAIN BIRD RWS (ROOT WATERING SYSTEM) PER IRRIGATION LEGEND (SHADED)
* 1/2" IN TURF AREAS, 2" IN SHRUB AREAS
** COMPONENTS INCLUDED IN RWS

NOTES:
LOCATE TREE BUBBLERS ON OPPOSITE SIDES OF THE PLANT ADJACENT TO THE ROOTBALL. LOCATE BUBBLERS AND ROUTE PIPING TO AVOID TREE STAKES AND DAMAGE TO ROOTBALL.

TREE ROOT WATERING SYSTEM BUBBLER B



SECTION / ELEVATION

NOTES:
INSTALL PER ALL LOCAL CODES. FINAL LOCATION TO BE APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT AND/OR OWNER.

1. REDUCED PRESSURE BACKFLOW PREVENTER PER IRRIGATION LEGEND
2. V.I.T. BACKFLOW PREVENTER ENCLOSURE (#SBBC-30SS)
3. BRASS CLOSE NIPPLE (R/P SIZE)
4. WILKINS 500 SERIES PRESSURE REGULATOR (R/P SIZE)
5. MOUNT ENCLOSURE TO CONCRETE PAD PER MANUFACTURER
6. 6" THICK CONCRETE PAD
7. FINISH GRADE
8. NATIVE SOIL
9. BRASS NIPPLE (R/P SIZE) LENGTH AS REQUIRED
10. BRASS ELL (R/P SIZE)
11. MAINLINE PIPING PER IRRIGATION LEGEND (TO SYSTEM)
12. SCH 40 PVC MALE ADAPTER (BUSH UP TO MAINLINE PLAN SIZE WHERE R/P DEVICE IS SMALLER THAN MAINLINE SIZE)
13. MAINLINE PIPING PER IRRIGATION LEGEND (FROM P.O.C.)
14. WILKINS YBP-80 STRAINER (R/P SIZE)

BACKFLOW PREVENTER / ENCLOSURE C

RPV

REVISIONS:

NO.	DATE	ITEM

ABALONE COVE SHORELINE PARK IMPROVEMENTS

PROJECT:

IRRIGATION DETAILS

SHEET TITLE:

MELÉNDREZ
James Ovbiagele Building, 11th Floor
617 South Olive Street
Los Angeles, California 90014
p 213-673-4600
f 213-673-4410
www.melendrez.com

REGISTRATION:

LICENSED LANDSCAPE ARCHITECT
JENNIFER PASCHER
No.4933
Signature
2-28-15
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: 1305101.00

SUBMITTAL DATE: 07/19/2013

PHASE: CONST. DOCS. (50%)

DESIGNED BY: AH

DRAWN BY: JM / TA

PLAN NO:

L-5.2

SHEET NO: 11 OF 16

IRRIGATION SPECIFICATIONS:

1. SCOPE OF WORK

1.1. THE WORK CONSISTS OF FURNISHING LABOR, TOOLS, MACHINERY, MATERIALS, AND PROCEDURE REQUIRED TO COMPLETE THE SPRINKLER SYSTEM, INSTALLED READY FOR USE WITHOUT FURTHER COST IN LABOR OR MATERIALS TO THE CITY/OWNER.
1.2. WHEN NOT OTHERWISE SPECIFIED, WORKMANSHIP AND MATERIAL SHALL CONFORM TO THE LOCAL PLUMBING CODE.
1.3. THE CONTRACTOR SHALL APPLY FOR ALL NECESSARY PERMITS AND PAY FOR SAME.
1.4. THE CONTRACTOR SHALL KEEP THE PREMISES CLEAN AND FREE OF EXCESS EQUIPMENT, MATERIALS AND RUBBISH INCIDENTAL TO THIS WORK.
1.5. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO INDICATE AND SPECIFY A COMPLETE SPRINKLER SYSTEM, INSTALLED AND READY FOR USE WITHOUT FURTHER COST IN LABOR OR MATERIALS TO CITY/OWNER.
1.6. ANY ITEM SHOWN OR WRITTEN ON THE DRAWINGS OR IN THESE SPECIFICATIONS SHALL BE CONSIDERED TO APPEAR ON BOTH.
1.7. IN THE EVENT OF "CONFLICT" BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE LANDSCAPE ARCHITECT SHALL BE CONSULTED.
1.8. PRIOR TO SUBMISSION OF HIS BID, THE CONTRACTOR SHALL EXAMINE THE SITE, THE COMPLETE DRAWINGS OF THE PROJECT AND THE SPECIFICATIONS OF SAME, IN ADDITION TO THE DRAWINGS AND SPECIFICATIONS FOR THE SPRINKLER IRRIGATION PORTION OF THE WORK.

2. REFERENCE SPECIFICATIONS AND STANDARDS

2.1. THE INTENT OF THE DRAWING AND SPECIFICATIONS IS TO GRAPHICALLY INDICATE AND SPECIFY A COMPLETE AND EFFICIENT SPRINKLER IRRIGATION SYSTEM.
2.2. PLOT DIMENSIONS ARE APPROXIMATE. CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL DIMENSIONS AND SHALL REPORT ANY VARIATIONS TO THE LANDSCAPE ARCHITECT.
2.3. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, ETC. WHICH MAY BE REQUIRED. CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL HIS WORK, AND PLAN HIS WORK ACCORDINGLY. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN THE MOST DIRECT AND WORKMANLIKE MANNER, SO THAT CONFLICTS BETWEEN SPRINKLER SYSTEMS, PLANTING AND ARCHITECTURAL FEATURES WILL BE AVOIDED.
2.4. LANDSCAPE ARCHITECT/OWNER'S REPRESENTATIVE SHALL DECIDE ALL QUESTIONS RELATIVE TO THE QUALITY OF WORKMANSHIP AND MATERIALS FURNISHED.
2.5. THE LANDSCAPE ARCHITECT SHALL DECIDE ALL QUESTIONS RELATING TO THE "INTERPRETATION" OF THE DRAWINGS AND SPECIFICATIONS AND THE ACCEPTABLE FULFILLMENT OF THE CONTRACT.

3. SUBSTITUTIONS

3.1. THE CONTRACTOR SHALL FURNISH THE ARTICLES, EQUIPMENT OR MATERIALS SPECIFIED BY NAME IN THE DRAWINGS AND SPECIFICATIONS. NO SUBSTITUTION WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT.
3.2. EQUIPMENT OR MATERIALS INSTALLED OR FURNISHED WITHOUT THE PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT MAY BE REJECTED AND THE CONTRACTOR REQUIRED TO REMOVE SUCH MATERIALS FROM THE SITE AT THIS OWN EXPENSE.
3.3. APPROVAL OF ANY ITEM, ALTERNATE OR SUBSTITUTE, INDICATES ONLY THAT THE PRODUCT(S) APPARENTLY MEET THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS ON THE BASIS OF THE INFORMATION SUBMITTED.
3.4. MANUFACTURER'S WARRANTIES SHALL NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTY SHALL ONLY SUPPLEMENT THE GUARANTEE.
3.5. THE LANDSCAPE ARCHITECT CAN, AT HIS OPTION, REQUIRE A MANUFACTURER'S WARRANTY ON ANY PRODUCT OFFERED FOR USE.

4. IRRIGATION GUARANTEE

4.1. THE ENTIRE SPRINKLER SYSTEM SHALL BE UNCONDITIONALLY GUARANTEED BY THE CONTRACTOR AS TO MATERIAL AND WORKMANSHIP, INCLUDING SETTLING OF BACK-FILLED AREAS BELOW GRADE FOR A PERIOD OF ONE (1) YEAR FOLLOWING THE DATE OF FINAL ACCEPTANCE OF WORK.
4.2. IF, WITHIN ONE (1) YEAR FROM THE DATE OF FILING OF THE NOTICE OF COMPLETION, SETTLEMENT OCCURS AND ADJUSTMENTS IN PIPES, VALVES AND SPRINKLER HEADS, SOD OR PAVING IS NECESSARY TO BRING THE SYSTEM, SOD OR PAVING TO THE PROPER LEVEL OF THE PERMANENT GRADES, THE CONTRACTOR, AS PART OF THE WORK UNDER HIS CONTRACT, SHALL MAKE ALL ADJUSTMENTS WITHOUT COST TO THE CITY/OWNER, INCLUDING THE COMPLETE RESTORATION OF ALL DAMAGED PLANTING, PAVING, OR OTHER IMPROVEMENTS OF ANY KIND.
4.3. SHOULD ANY OPERATIONAL DIFFICULTIES DEVELOP IN CONNECTION WITH THE SPRINKLER SYSTEM WITHIN THE SPECIFIED GUARANTEE PERIOD WHICH, IN THE OPINION OF THE CITY/OWNER, MAY BE DUE TO INFERIOR MATERIAL AND/OR WORKMANSHIP, SAID DIFFICULTIES SHALL BE IMMEDIATELY CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY/OWNER AT NO ADDITIONAL COST TO THE CITY/OWNER, INCLUDING ANY AND ALL OTHER DAMAGE CAUSED BY SUCH DEFECTS.

5. RESPONSIBILITY

5.1. THE CONTRACTOR SHALL LOCATE LINES, VALVES, AND OTHER UNDERGROUND UTILITIES, ETC., PRIOR TO EXCAVATING TRENCHES. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES.

6. RECORD DRAWINGS

6.1. LOCATIONS ON DRAWINGS ARE DIAGRAMMATIC AND APPROXIMATE ONLY, AND SHALL BE CHANGED AND ADJUSTED AS NECESSARY OR AS DIRECTED TO MEET EXISTING CONDITIONS AND TO FOLLOW THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IN OBTAINING COMPLETE WATER COVERAGE. IT IS, THEREFORE, THE CONTRACTOR'S RESPONSIBILITY TO RECORD ANY CHANGES AS TO LOCATION OF EQUIPMENT ON "AS-BUILT" DRAWINGS.
6.2. PROCEDURE FOR "AS-BUILT" PREPARATION SHALL BE:
6.2.1. OBTAIN FROM THE LANDSCAPE ARCHITECT ONE (1) SET OF REPRODUCIBLE DRAWINGS. RECORD ACCURATELY ON THIS SET ALL CHANGES IN THE WORK CONSTITUTING DEPARTURES FROM THE ORIGINAL CONTRACT DRAWINGS.
6.2.2. DIMENSION FROM TWO PERMANENT POINTS OF REFERENCE (BUILDINGS, MONUMENTS, SIDEWALKS, CURBS, PAVEMENT). POST INFORMATION ON "AS-BUILT" DRAWINGS, DAY-TO-DAY, AS THE PROJECT IS INSTALLED. ALL DIMENSIONS NOTED ON DRAWINGS SHALL BE ONE-QUARTER (1/4) INCH IN SIZE.
6.2.3. SHOW DIMENSIONAL LOCATIONS AND DEPTHS OF THE FOLLOWING:

ALL POINT OF CONNECTION / CONTROL EQUIPMENT
ROUTING OF SPRINKLER PRESSURE LINES (DIMENSION MAXIMUM OF ONE-HUNDRED (100) FEET ALONG ROUTING AND ALL DIRECTIONAL CHANGES)
BALL VALVES / GATE VALVES
SPRINKLER CONTROL VALVES (BURIED ONLY)
QUICK COUPLING VALVES
ROUTING OF CONTROL VALVE WIRING
OTHER RELATED EQUIPMENT (AS MAY BE DIRECTED BY THE LANDSCAPE ARCHITECT)

6.2.4. MAINTAIN "AS-BUILT" DRAWINGS ON SITE AT ALL TIMES.
6.2.5. MAKE ALL CHANGES TO REPRODUCIBLE DRAWINGS IN INK (NO BALL-POINT PEN). USE ERADICATING FLUID WHEN REDOING DRAWINGS. MAKE CHANGES IN A MANNER EQUAL TO THE ORIGINAL DRAWING.

7. CONTROLLER CHARTS

7.1. "AS-BUILT" DRAWINGS SHALL BE APPROVED BY LANDSCAPE ARCHITECT OR LANDSCAPE COORDINATOR BEFORE CHARTS ARE PREPARED.
7.2. PROVIDE ONE CONTROLLER CHART OF THE MAXIMUM SIZE CONTROLLER DOOR WILL ALLOW, FOR EACH CONTROLLER SUPPLIED, SHOWING THE AREA COVERED BY AUTOMATIC CONTROLLER.
7.3. THE CHART SHALL BE A REDUCTION OF THE ACTUAL "AS-BUILT" SYSTEM DRAWING. IF THE CONTROLLER SEQUENCE IS NOT LEGIBLE WHEN THE DRAWINGS IS REDUCED, ENLARGE IT TO A SIZE THAT WILL BE READABLE WHEN REDUCED.
7.4. CHART SHALL BE BLACKLINE PRINT AND A DIFFERENT PASTEL COLOR USED TO SHOW AREA OF COVERAGE FOR EACH STATION.
7.5. WHEN COMPLETED AND APPROVED, HERMETICALLY SEAL THE CHART BETWEEN TWO PIECES OF PLASTIC, EACH PIECE BEING A MINIMUM TWENTY (20) MIL THICKNESS.
7.6. CHARTS SHALL BE COMPLETED AND APPROVED PRIOR TO FINAL INSPECTION OF THE IRRIGATION SYSTEM.

8. OPERATION AND MAINTENANCE MANUALS

8.1. PREPARE AND DELIVER TO THE LANDSCAPE ARCHITECT WITHIN TEN (10) CALENDAR DAYS PRIOR TO COMPLETION OF CONSTRUCTION, ALL REQUIRED AND NECESSARY DESCRIPTIVE MATERIAL IN COMPLETE DETAIL AND SUFFICIENT QUANTITY, PROPERLY PREPARED IN FOUR INDIVIDUALLY BOUND COPIES. DESCRIBE THE MATERIAL INSTALLED IN SUFFICIENT DETAIL TO PERMIT OPERATING PERSONNEL TO UNDERSTAND, OPERATE AND MAINTAIN ALL EQUIPMENT. INCLUDE SPARE PARTS LIST AND RELATED MANUFACTURER INFORMATION FOR EACH EQUIPMENT ITEM INSTALLED. EACH MANUAL SHALL INCLUDE THE FOLLOWING:

INDEX SHEET STATING SUBCONTRACTOR'S ADDRESS AND TELEPHONE NUMBER.
DURATION OF GUARANTEE PERIOD.
LIST OF EQUIPMENT WITH NAMES AND ADDRESSES OF MANUFACTURER'S LOCAL REPRESENTATIVES.
COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS ON ALL MAJOR EQUIPMENT.

8.2. IN ADDITION TO THE MAINTENANCE MANUALS, PROVIDE THE MAINTENANCE PERSONNEL WITH INSTRUCTIONS FOR MAJOR EQUIPMENT AND SHOW WRITTEN EVIDENCE AT THE END OF THE PROJECT THAT THIS SERVICE HAS BEEN RENDERED.
8.3. LOOSE SPRINKLING EQUIPMENT, OPERATING KEYS AND SPARE PARTS WILL BE FURNISHED BY THE CONTRACTOR IN QUANTITIES AS SHOWN ON PLANS OR IN SPECIFICATIONS.

9. MATERIALS

9.1. USE NEW MATERIALS OF THE BEST GRADE OF EACH RESPECTIVE KIND AND OF THE SAME MANUFACTURERS FOR ALL ITEMS OF ONE TYPE.
9.2. STEEL PIPE.
9.2.1. STEEL PIPE AND STEEL FITTINGS WHERE INDICATED ON THE DRAWINGS OR SPECIFIED SHALL BE SCHEDULE 40 GALVANIZED MILD STEEL THREADED PIPE AND BEADED GALVANIZED MALLEABLE IRON THREADED FITTINGS, EXCEPT COUPLINGS WHICH SHALL BE A.P.I. (AMERICAN PIPE INSTITUTE) STEEL COUPLINGS. THREAD ON PIPE AND FITTINGS SHALL BE OF TAPER TYPE.
9.2.2. ALL UNIONS TWO (2) INCHES AND SMALLER SHALL BE GROUND JOINT PATTER. UNIONS LARGER THAN TWO (2) INCHES SHALL BE FLANGED UNIONS. ALL FLANGED UNIONS SHALL BE PLACED WITH ONE-SIXTEENTH (1/16) INCH THICK ASBESTOS FIBER GASKETS. RIGHT AND LEFT COUPLINGS SHALL BE USED INSTEAD OF GROUND JOINT UNIONS IN ALL UNDERGROUND LINES, EXCEPT AT VALVES.
9.2.3. STEEL STREET ELBOWS, BUSHINGS, CLOSE NIPPLES, AND LONG SCREWS SHALL NOT BE USED IN THE WORK.
9.3. PLASTIC PIPE
9.3.1. PLASTIC PIPE SHALL BE EXTRUDED FROM VIRGIN PVC (POLYVINYL CHLORIDE) TYPE 1, GRADE 11 (CLASS 1220) AS MANUFACTURED BY LASCO INDUSTRIES, BALDWIN, PACIFIC WESTERN, JOHNS-MANVILLE OR EQUAL. CLASS SCHEDULE AS INDICATED IN THE LEGEND.
9.3.2. ALL PLASTIC PIPE SHALL BE CONTINUOUSLY AND PERMANENTLY MARKED WITH THE FOLLOWING INFORMATION: MANUFACTURER'S NAME, NOMINAL PIPE SIZE, PVC 1220, S.D.R. (STANDARD DIMENSION RATIOS, OR THE PRESSURE RATING IN POUNDS PER SQUARE INCH) AND THE N.S.F. (NATIONAL SANITATION FOUNDATION).
9.3.3. PLASTIC FITTINGS SHALL BE PVC 11, I.P.S, (INTERNATIONAL PIPE SOCIETY), SCHEDULE 40, N.S.F., SCHEDULE 80, N.S.F., AND SCHEDULE 80 THREADED FITTINGS AS SHOWN IN THE DETAILS AS MANUFACTURED BY SLOANE MANUFACTURING CO. SOLVENT AND PRIMER ARE TO BE PER PIPE MANUFACTURER'S RECOMMENDATIONS.
9.4. PVC PRESSURE RATED PIPE TYPE 1220 (PVC CLASS 160, 200 & 315) AND TYPE 1120 (PVC SCHEDULE 40 & PVC SCHEDULE 80)
9.4.1. TYPE I GRADE II PRESSURE RATED PIPE.
9.4.2. MATERIALS SHALL MEET THE REQUIREMENTS SET FORTH IN ASTM D1784-60T.
9.4.3. OUTSIDE DIAMETER OF PIPE SHALL BE THE SAME SIZE AS IRON PIPE.
9.4.4. PIPE SHALL BE MARKED AT INTERVALS WITH THE FOLLOWING INFORMATION (NOT TO EXCEED 5'): MANUFACTURER'S NAME, NOMINAL SIZE, PVC TYPE AND GRADE (I.E., PVC 1220) SDR RATING CLASS, NSF APPROVAL AND COMMERCIAL STANDARD DESIGNATION.
9.4.5. PVC FITTINGS SHALL BE PVC TYPE II, SCHEDULE 40 NSF, SCHEDULE 80 NSF, OR APPROVED.
9.4.6. SOLVENT SHALL BE #175 GRAY NSF APPROVED AS MANUFACTURED BY INDUSTRIAL POLYCHEMICAL SERVICE, GARDENA CALIFORNIA.
9.4.7. CAUTIONED SHALL BE UTILIZED IN HANDLING TYPE I PIPE DUE TO THE POSSIBILITY OF CRACKING OR OF SPLITTING WHEN DROPPED OR HANDLED CARELESSLY.
9.4.8. WHEN CONNECTION IS PLASTIC TO METAL, MALE ADAPTERS SHALL BE HAND TIGHTENED, PLUS ONE TURN WITH A STRAP WRENCH. JOINT COMPOUND SHALL BE PERMATIX TYPE II.
9.5. SPRINKLER HEADS
9.5.1. SPRINKLER HEADS SHALL BE AS SHOWN ON PLAN.
9.6. VALVES
9.6.1. REMOTE CONTROL VALVES - ELECTRIC REMOTE CONTROL VALVES SHALL BE AS SHOWN ON PLAN.
9.6.2. QUICK COUPLING VALVES - QUICK COUPLING VALVES SHALL BE AS INDICATED ON PLANS AND SHALL HAVE A LOCKING COVER. EACH QUICK COUPLER VALVE SHALL HAVE A MOLDED VINYL COVER, YELLOW IN COLOR (PURPLE WHERE CALLED FOR IN RECYCLED WATER SYSTEMS). ALL QUICK COUPLER VALVES KEYS AND HOSE SWIVELS SHALL BE OF SAME MANUFACTURER AS THE QUICK COUPLER.
9.7. AUTOMATIC CONTROLLERS - AUTOMATIC CONTROLLERS SHALL BE AS SHOWN ON PLANS AND DETAILS.
9.8. CONTROL WIRES FOR RCV'S - ALL WIRING TO BE USED FOR CONNECTING THE AUTOMATIC CONTROLLER TO THE ELECTRICAL SOLENOID ACTUATED BY REMOTE CONTROL VALVE SHALL BE SOLID COPPER, PVC INSULATION, SINGLE CONDUCTOR, UL APPROVED UNDERGROUND FEEDER CABLE. EACH PILOT OR "HOT" WIRE SHALL BE BLACK OR COLOR-CODED WITH THE COMMON WIRE BEING WHITE.
9.9. RUN TWO SPARE CONTROL WIRES TO THE FARTHEST VALVE IN EACH MAINLINE DIRECTION. SHOW ON AS-BUILTS. COLOR CODE DIFFERENT THAN PILOT AND COMMON WIRES.
9.10. WIRING FOR FLOW SENSORS AND MASTER VALVES SHALL BE AS RECOMMENDED BY THE MANUFACTURER AND SHALL BE COLOR CODED DIFFERENTLY THAN COMMON WIRE, CONTROL WIRES, AND SPARE WIRES.
9.11. VALVE BOXES - ALL REMOTE CONTROL VALVES, SHUT-OFF VALVES, FLOW SENSORS, AND QUICK COUPLING VALVES SHALL BE INSTALLED IN SUITABLE VALVE BOXES AS SHOWN IN DETAILS, COMPLETE WITH LOCKING COVERS. ALL SHALL BE N.D.S. OR APPROVED EQUAL AND SHALL BE IDENTIFIED ON THE LID WITH HEAT-BRANDED NUMBERS / LETTERS IN 2" HIGH BLOCK LETTERS AS SHOWN ON THE DETAILS. ALL BOXES SHALL HAVE GREEN COVERS (PURPLE FOR RECYCLED WATER SYSTEMS).
9.12. BACKFLOW PREVENTION UNITS THE BACKFLOW PREVENTION UNITS SHALL BE AS SHOWN ON PLANS AND DETAILS.
9.13. ANY OTHER EQUIPMENT NOT SPECIFICALLY NOTED HEREIN BUT REQUIRED BY THE PLANS, DETAILS, OR LEGENDS SHALL BE SUPPLIED AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. IF ANY QUESTION ARISES AS TO PROPER PROCEDURE, IT SHALL BE RESOLVED WITH THE LANDSCAPE ARCHITECT BEFORE INSTALLATION.

10. INSTALLATION

10.1. SITE CONDITIONS
10.1.1. ALL SCALED DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THE SITE PRIOR TO PROCEEDING WITH WORK UNDER THIS CONTRACT.
10.1.2. EXTREME CARE SHALL BE EXERCISED IN EXCAVATING AND WORKING NEAR EXISTING UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY FACILITIES.
10.1.3. SHOULD UTILITIES NOT LOCATED OR MARKED BE FOUND DURING EXCAVATION, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER AND SHALL DISCONTINUE WITH WORK IN THE AREA, EXCEPT NECESSARY EMERGENCY WORK NECESSARY TO REPAIR OR PREVENT DAMAGE UNTIL INSTRUCTIONS ARE RECEIVED.
10.1.4. FAILURE TO NOTIFY THE OWNER OF DISCOVERY OF SUCH UTILITIES OR DAMAGE THERETO WILL RESULT IN THE CONTRACTOR BEING LIABLE FOR ANY AND ALL DAMAGE CAUSED TO THE UTILITIES AS A RESULT OF HIS ACTIONS.
10.1.5. THE CONTRACTOR SHALL, BEFORE STARTING WORK ON THE SPRINKLER SYSTEM, CAREFULLY CHECK ALL FINISH GRADES TO SATISFY HIMSELF THAT HE MAY PROCEED WITH THE WORK.
10.2. WATER SUPPLY
10.2.1. THE CONTRACTOR SHALL ARRANGE FOR THE PROVISION OF THE WATER SUPPLY AND COORDINATE WITH THE OWNER AS NECESSARY.
10.2.2. THE CONTRACTOR SHALL CONNECT TO THE WATER SOURCE AS INDICATED ON THE DRAWINGS.
10.3. ELECTRICAL
10.3.1. THE OWNER SHALL ARRANGE FOR THE PROVISION OF THE ELECTRICAL SUPPLY. POWER SOURCES SHALL BE AS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL CONNECT AT THE POINT SHOWN ON THE DRAWINGS.
10.3.2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ELECTRICAL CONNECTIONS TO THE AUTOMATIC CONTROLLERS. ALL WIRING SHALL BE ROUTED AS SHOWN ON PLANS. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH ALL LOCAL OR COUNTY ORDINANCES.
10.4. EXISTING UTILITIES - THE CONTRACTOR SHALL LOCATE AND MARK ALL EXISTING UTILITIES SUCH AS POWER, TELEPHONE, DOMESTIC WATER AND TILE DRAINS. EXTREME CARE SHALL BE TAKEN BY THE CONTRACTOR WHEN EXCAVATING OR WORKING IN THESE AREAS AND COORDINATION AND COOPERATION WITH OTHER CONTRACTOR IS REQUIRED AS THE WORK PROGRESSES TO THESE AREAS.
10.5. TRENCHES IN GENERAL
10.5.1. TRENCHES SHALL BE DUG STRAIGHT, AND PIPE SHALL HAVE THE CONTINUOUS SUPPORT FOR THE DITCH BOTTOM AND SHALL BE LAID TO AN EVEN GRADE. TRENCHING EXCAVATION SHALL FOLLOW THE LAYOUT INDICATED ON THE DRAWINGS.
10.5.2. ALL PRESSURE SUPPLY LINES SHALL HAVE A MINIMUM DEPTH OF EIGHTEEN (18) INCHES MINIMUM UNLESS OTHERWISE NOTED.
10.5.3. ALL NON-PRESSURE SUPPLY LINES SHALL HAVE A MINIMUM DEPTH OF TWELVE (12) INCHES MINIMUM AS SHOWN IN THE DETAILS.
10.5.4. ALL LINES SHALL HAVE A MINIMUM CLEARANCE OF SIX (6) INCHES FROM EACH OTHER AND FROM LINES OF OTHER TRADES.
10.5.5. NO LINE SHALL BE INSTALLED DIRECTLY OVER ANOTHER LINE.
10.5.6. IF NECESSARY, CALL UNDERGROUND ALERT, OR SIMILAR COMPANY.
10.6. BACKFILLING
10.6.1. BACKFILL FOR TRENCHING SHALL BE COMPACTED TO DRY DENSITY EQUAL TO THE ADJACENT UNDISTURBED SOIL, AND SHALL CONFORM TO THE ADJACENT GRADES WITHOUT DIPS, SUNKEN AREAS, HUMPS OR OTHER IRREGULARITIES. INITIAL BACKFILL ON ALL LINES SHALL BE OF A FINE GRANULAR MATERIAL WITH NO FOREIGN MATTER LARGER THAN ONE-HALF (1/2) INCH IN SIZE.
10.6.2. IF, IN THE OPINION OF THE CONTRACTOR/LANDSCAPE ARCHITECT, THE EXCAVATED MATERIAL IS NOT SATISFACTORY FOR USE AS BACKFILL, THE CONTRACTOR SHALL DISPOSE OF THIS UNSATISFACTORY MATERIAL.
10.6.3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SETTLING OF TRENCHES FROM HIS WORK.
10.7. PVC PIPE
10.7.1. PVC PIPE SHALL BE INSTALLED IN A MANNER WHICH WILL PROVIDE FOR EXPANSION AND CONTRACTION AS RECOMMENDED BY THE PIPE MANUFACTURER.
10.7.2. ALL PLASTIC TO METAL JOINTS SHALL BE MADE WITH PLASTIC MALE ADAPTERS, UNLESS OTHERWISE SHOWN IN DETAILS.
10.7.3. THE JOINTS SHALL BE ALLOWED TO SET AT LEAST TWENTY-FOUR (24) HOURS BEFORE PRESSURE IS APPLIED TO THE SYSTEM ON PVC PIPE.
10.7.4. AFTER ALL NEW SPRINKLER PIPING AND RISERS ARE IN PLACE AND CONNECTED, AND ALL NECESSARY WORK AS BEEN COMPLETED AND PRIOR TO THE INSTALLATION OF SPRINKLER HEADS, CONTROL VALVES SHALL BE OPENED AND A FULL HEAD OF WATER USED TO FLUSH OUT THE SYSTEM. AFTER THE SYSTEM IS THOROUGHLY FLUSHED, RISERS SHALL BE CAPPED OFF AND THE SYSTEM PRESSURE TESTED.
10.7.5. SPRINKLER LINES SHALL BE TESTED IN PLACE BEFORE BACKFILLING FOR A PERIOD OF NOT LESS THAN TWENTY-FOUR (24) HOURS AND SHALL SHOW NO LEAKAGE OR LOSS OF PRESSURE. DURING THE TEST PERIOD, MINIMUM TEST PRESSURE AT THE HIGHEST POINT OF THE SECTION BEING TESTED, SHALL BE 100 POUNDS PER SQUARE INCH.
10.7.6. AT THE CONCLUSION OF THE PRESSURE TEST, THE HEAD SHALL BE INSTALLED AND TESTED FOR OPERATION IN ACCORDANCE WITH DESIGN REQUIREMENTS UNDER NORMAL OPERATING PRESSURE, CONTRACTOR SHALL VERIFY HEAD PRESSURES WITH PITOT TUBE OR PRESSURE GAUGE ASSEMBLY, AND ADJUST VALVE TO CORRESPOND WITH DESIGN PRESSURE.
10.8. SPRINKLERS
10.8.1. ALL POP-UP SPRINKLERS SHALL BE PROVIDED WITH SWING JOINTS AND SHALL BE ADJUSTED TO THE PROPER HEIGHT. ALL NOZZLES SHALL BE ADJUSTED FOR PROPER THROW RADIUS FOR EFFICIENT COVERAGE.
10.8.2. SPRINKLER HEADS AND RISERS SHALL BE INSTALLED ACCORDING TO DETAILS.
10.9. VALVES
10.9.1. REMOTE CONTROL VALVES SHALL BE ADJUSTED SO THAT THE MOST REMOTE SPRINKLER HEADS OPERATE AT THE PRESSURE RECOMMENDED BY THE HEAD MANUFACTURER. REMOTE CONTROL VALVES SHALL BE ADJUSTED SO THAT A UNIFORM DISTRIBUTION OF WATER IS APPLIED BY THE SPRINKLER HEADS TO THE PLANTING AREAS FOR EACH INDIVIDUAL VALVE SYSTEM.
10.9.2. QUICK COUPLING VALVES SHALL BE SET IN VALVE BOXES APPROXIMATELY 12" FROM WALKS, CURBS, HEADERBOARDS, OR PAVED AREAS WHERE APPLICABLE. VERTICAL POSITIONING OF QUICK COUPLING VALVES SHALL BE SUCH THAT SLEEVE TOP WILL BE FLUSH WITH THE SETTLED FINISH GRADE AS DETERMINED AFTER THE TURF IS ESTABLISHED AND 2" ABOVE GRADE IN GROUND COVER AREAS.
10.10. VALVE BOXES
10.10.1. VALVE BOXES SHALL BE SET ONE-HALF INCH (1/2") ABOVE THE DESIGNATED FINISH GRADE IN LAWN AREAS AND ONE INCH (1") ABOVE FINISH GRADE IN GROUND COVER AREAS.
10.10.2. VALVE BOXES INSTALLED NEAR WALKS, CURBS, HEADERBOARDS AND PAVING SHALL ABUT THOSE ITEMS. TOP SURFACES SHALL BE FLUSH WITH ITEMS LISTED ABOVE.
10.11. AUTOMATIC CONTROLLER LOCATION AND INSTALLATION
10.11.1. THE AUTOMATIC CONTROLLER SHALL BE INSTALLED AT THE APPROXIMATE LOCATION SHOWN ON THE PLAN. VERIFY EXACT LOCATION WITH THE OWNER.
10.11.2. ALL LOCAL AND OTHER APPLICABLE CODES SHALL TAKE PRECEDENCE IN CONNECTING THE 110 VOLT ELECTRICAL SERVICE TO CONTROLLER. OWNER SHALL PROVIDE POWER TO CONTROLLER. CONTRACTOR SHALL COMPLETE HOOK-UP TO CONTROLLER.
10.11.3. THERE SHALL BE ADEQUATE COVERAGE OF EARTH (18" MINIMUM) OVER THE 24-VOLT CONTROL WIRE. INSTALL WIRE IN TRENCH AND TAPE TO MAIN LINES ON SIDE OF PIPE AT 10' INTERVALS.
10.12. CONTROL WIRE
10.12.1. ALL ELECTRICAL EQUIPMENT AND WIRING SHALL COMPLY WITH LOCAL AND STATE CODES AND BE INSTALLED BY THOSE SKILLED AND LICENSED IN THE TRADE.
10.12.2. CONNECTING AND SPLICING OF WIRE AT THE VALVES OR IN THE FIELD SHALL BE MADE USING A DRI-SPLICE CONNECTOR OR EQUAL.
10.13. PRESSURE TEST
10.13.1. ALL PRESSURE LINES SHALL BE TESTED UNDER PRESSURE WITH WATER AND AIR OF ONE-HUNDRED FIFTY (150) POUNDS PER SQUARE INCH, AND ALL NON-PRESSURE LINES SHALL BE TESTED UNDER THE EXISTING STATIC PRESSURE, AND BOTH BE PROVEN WATERTIGHT.
10.13.2. PRESSURE SHALL BE SUSTAINED IN THE LINES FOR A 24 HOUR PERIOD. IF LEAKS DEVELOP, THE JOINTS SHALL BE REPLACED AND THE TEST REPEATED UNTIL THE ENTIRE SYSTEM IS PROVEN WATERTIGHT.
10.13.3. TEST SHALL BE OBSERVED AND APPROVED BY THE OWNER PRIOR TO BACKFILL.
10.13.4. UPON COMPLETION OF EACH PHASE OF THE WORK, THE CONTRACTOR SHALL CHECK AND ADJUST EACH SPRINKLER HEAD TO MEETING THE SITE REQUIREMENTS.
10.14. COVERAGE TEST - UPON COMPLETION OF ALL SYSTEMS, THE CONTRACTOR, IN THE PRESENCE OF THE ARCHITECT, SHALL PERFORM A COVERAGE TEST TO DETERMINE IF THE COVERAGE OF WATER AFFORDED ALL AREAS IS COMPLETE AND ADEQUATE. THE CONTRACTOR SHALL CHANGE ANY HEADS, NOZZLES, OR ORIFICES AS MAY BE REQUIRED TO PROVIDE COVERAGE AS INDICATED ON THE DRAWINGS AND AS SPECIFIED.
10.15. LOWERING OF HEADS - UNLESS OTHERWISE NOTED, ALL SPRINKLERS INSTALLED IN LAWN AREAS SHALL BE LOWERED TO FINISH GRADE WITHIN FIVE DAYS FOLLOWING NOTIFICATION BY THE CITY/OWNER. AT THE TIME OF LOWERING HEADS, THE CONTRACTOR SHALL COMPLETELY CHECK AND ADJUST THE ENTIRE SYSTEM AND MAKE ANY REPAIRS THAT ARE NECESSARY TO COMPLETE THIS WORK TO THE SATISFACTION OF THE CITY/OWNER, LANDSCAPE ARCHITECT AND/OR OWNER'S CHOSEN REPRESENTATIVE. THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING UPON COMPLETION OF THIS WORK.
10.16. WORKMANSHIP AND PROCEDURE
10.16.1. THE ROUTING OF THE PRESSURE SUPPLY LINES AS INDICATED ON THE DRAWINGS IS DIAGRAMMATIC. THE CONTRACTOR SHALL INSTALL LINES IN A MANNER THAT CONFORMS WITH THE VARIOUS DETAILS, WITHOUT OFFSETTING THE VARIOUS ASSEMBLIES FROM THE PRESSURE SUPPLY LINE.
10.16.2. NO MULTIPLE ASSEMBLIES SHALL BE INSTALLED ON PLASTIC LINES. EACH ASSEMBLY SHALL BE PROVIDED WITH ITS OWN OUTLET.
10.16.3. ALL ASSEMBLIES SPECIFIED HEREIN SHALL BE INSTALLED IN ACCORDANCE WITH THE RESPECTIVE DETAIL. IN THE ABSENCE OF DETAIL DRAWINGS OR SPECIFICATIONS PERTAINING TO THE SPECIFIC ITEMS REQUIRED TO COMPLETE THE WORK, THE CONTRACTOR SHALL PERFORM SUCH WORK IN ACCORDANCE WITH THE BEST STANDARD PRACTICE AND TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT/CONTRACTOR.

11. INSPECTION OF WORK

11.1. INSTALLATIONS AND OPERATIONS MUST BE APPROVED BY THE CITY/OWNER AND LANDSCAPE ARCHITECT.
11.2. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE CITY/OWNER, AT WHICH TIME THE CONTRACTOR WILL BE INFORMED OF SPECIFIC INSPECTIONS REQUIRED AND THE METHOD OF CALLING FOR SUCH INSPECTIONS AS THE INDIVIDUAL WORK IS COMPLETED.

12. RESPONSIBILITY

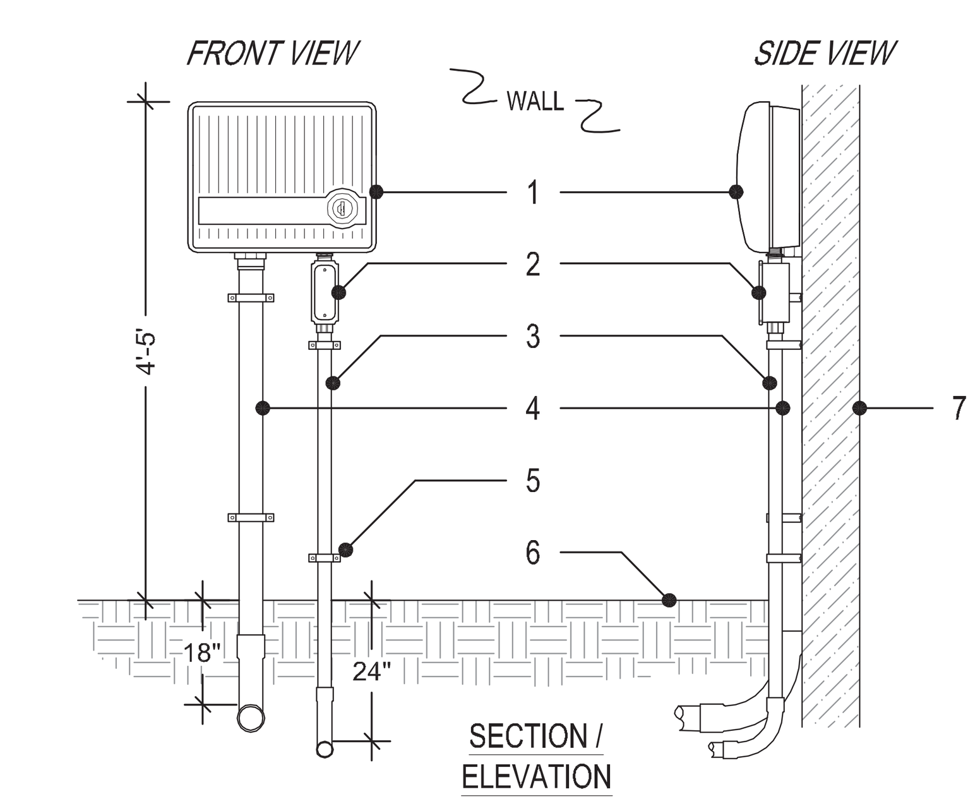
12.1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO BE PERFORMED UNDER THIS CONTRACT. NO CONTRACTOR SHALL BE RELIEVED OF HIS LIABILITY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND INDICATED IN THE SPECIFICATIONS, UNLESS AUTHORIZED IN WRITING BY THE CITY/OWNER OR OWNER'S APPROVED REPRESENTATIVE.
12.2. THE CONTRACTOR SHALL PROTECT HIS WORK FROM DAMAGE AND THEFT AT ALL TIME, AND REPLACE ALL DAMAGED OR STOLEN PARTS AT HIS EXPENSE UNTIL THE WORK IS ACCEPTED IN WRITING BY THE CITY/OWNER.
12.3. THE CONTRACTOR SHALL PROTECT THE CITY/OWNER'S PROPERTY FROM INJURY OR LOSS. ALL DAMAGE TO EXISTING PROPERTY (BUILDINGS, UTILITIES, ETC.) OR PLANTING (TREES, SHRUBS, LAWNS OR GROUNDCOVERS) CAUSED BY THE CONTRACTOR DURING HIS OPERATION OR AS A RESULT OF MALFUNCTION OF INSTALLED WORK DURING THE GUARANTEE PERIOD SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
12.4. THE CONTRACTOR SHALL CAREFULLY NOTE ALL FINISH GRADE BEFORE COMMENCING WORK. ANY FINISH GRADE CHANGED DURING THE COURSE OF HIS WORK SHALL BE RESTORED TO THE ORIGINAL CONTOURS.
12.5. THE CONTRACTOR SHALL CAUSE MINIMUM INTERFERENCE WITH WORKMEN OR THE MATERIALS AND EQUIPMENT OF OTHER TRADES PEOPLE WORKING ON THE PROJECT.

13. COMPLETION CLEAN-UP

13.1. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REMOVE EXCESS MATERIALS, RUBBISH, DEBRIS, ETC., AND HIS CONSTRUCTION AND INSTALLATION EQUIPMENT FROM THE PREMISES.

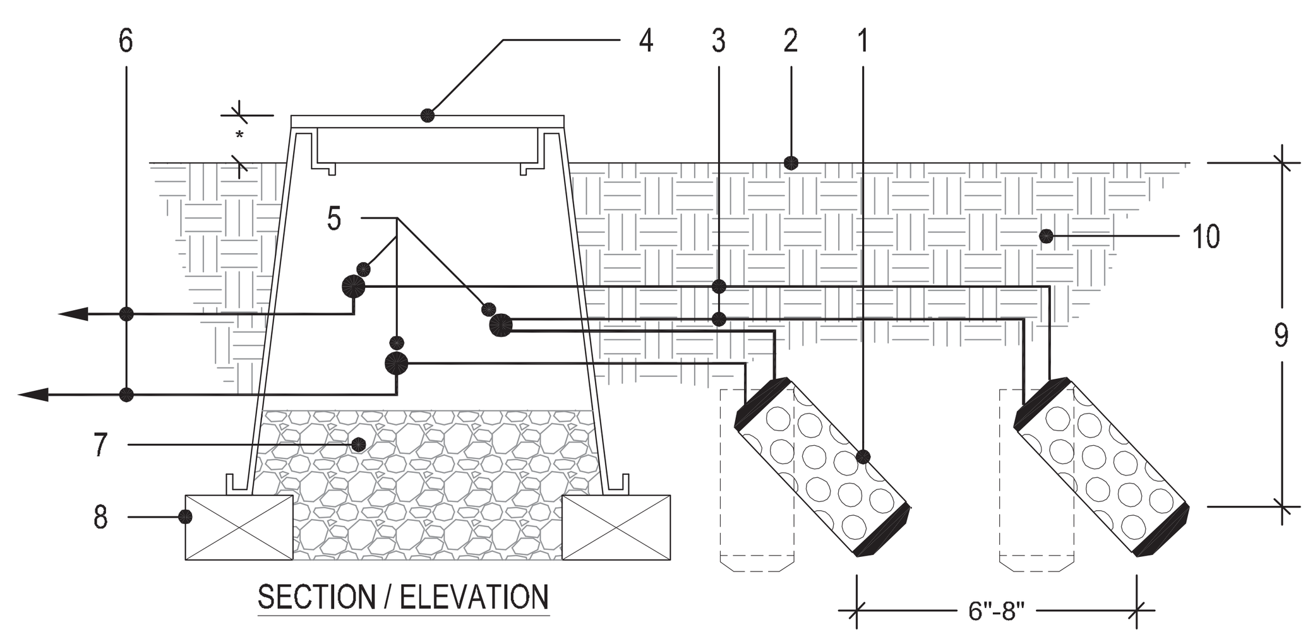
14. MAINTENANCE

14.1. UPON FINAL ACCEPTANCE BY THE CITY/OWNER, THE CONTRACTOR SHALL PROVIDE A NINETY (90) DAY MAINTENANCE SERVICE FOR THE ENTIRE IRRIGATION SYSTEM. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO BROKEN SPRINKLER REPAIR AND/OR REPLACEMENT, CLOGGED DRIP LINE REPAIR / REPLACEMENT, BROKEN PIPE REPAIR AND/OR REPLACEMENT, ADJUSTMENT OF HEADS, ADJUSTMENT OF CONTROLLER PROGRAMMING, AND WEEKLY INSPECTIONS FOR ANY MALFUNCTIONS.



1. AUTOMATIC CONTROLLER PER LEGEND - MOUNT TO WALL PER MANUFACTURER'S DIRECTIONS
2. ELECTRICAL JUNCTION BOX FOR 115V AC POWER CONNECTION
3. 1/2" CONDUIT WITH 115V AC POWER WIRES TO POWER SOURCE
4. SCH 40 PVC CONDUIT FOR CONTROL WIRES
5. SECURE ALL CONDUITS TO WALL WITH "C" CLAMP IN A MINIMUM OF TWO PLACES (TYP)
6. FINISH GRADE
7. WALL

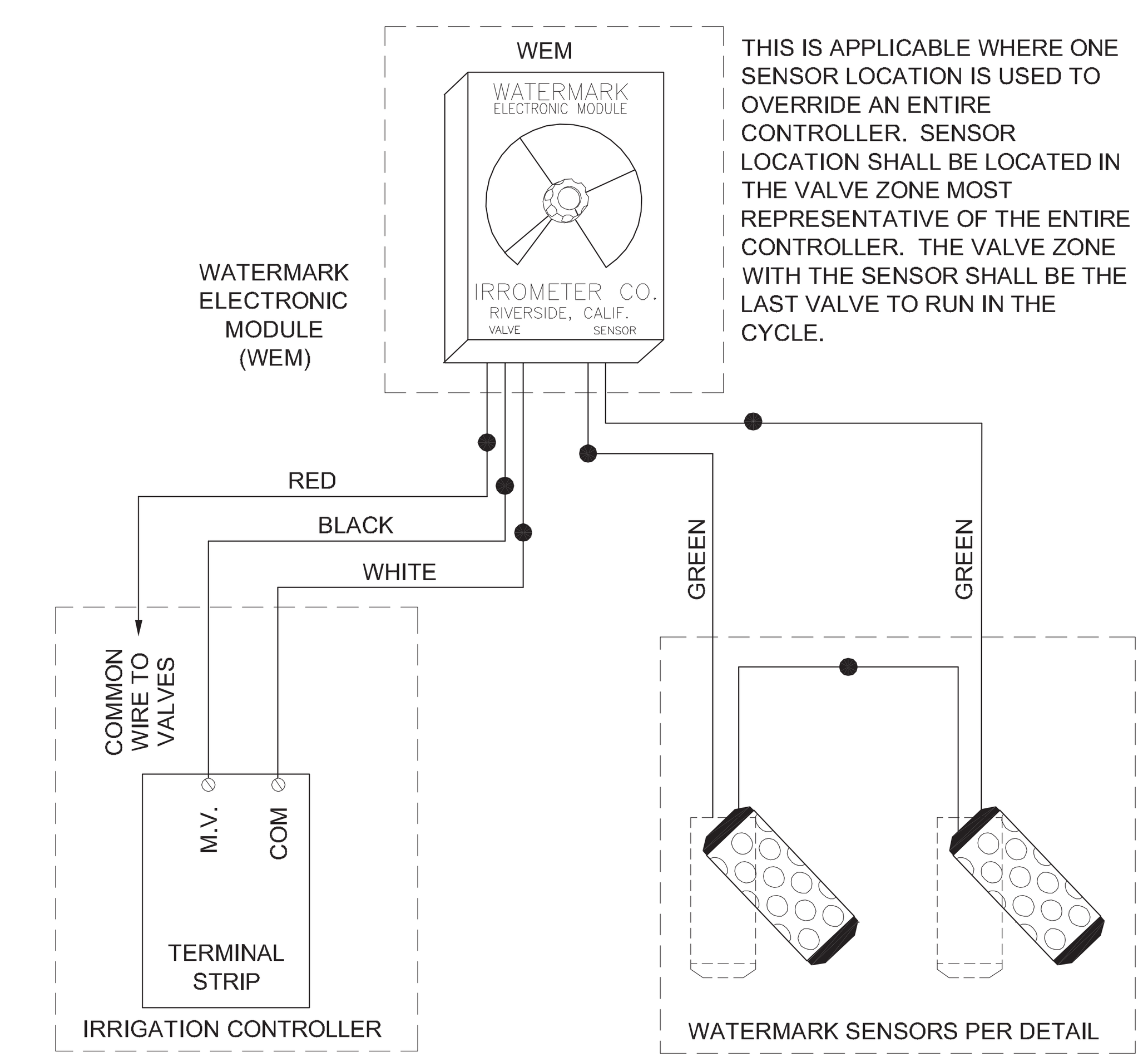
CONTROLLER - WALL MOUNT — M



1. TWO (2) IRROMETER WATERMARK SERIES SOIL MOISTURE SENSORS - WIRED IN SERIES - ANGLE BETWEEN 0 AND 45 DEGREES
2. FINISH GRADE
3. WIRES FROM SENSORS TO CONNECTION BOX (TYPICAL)
4. 6" ROUND PLASTIC CONNECTION BOX - LOCATE 2'-3' FROM SENSORS
5. WATERPROOF WIRE CONNECTORS
6. WIRES FROM CONNECTION BOX TO IRROMETER WEM AT CONTROLLER
7. FILL BASE OF BOX WITH PEA GRAVEL
8. COMMON BRICK SUPPORT (TWO REQUIRED)
9. DEPTH AS REQUIRED - APPROXIMATELY 40-50% OF THE EFFECTIVE ROOT DEPTH
10. NATIVE SOIL
*. 1/2" IN TURF AREAS, 2" IN SHRUB AREAS

NOTES:
INSTALL SENSOR IN ACTIVE ROOT ZONE AREAS. LOCATE SENSORS IN ZONE REPRESENTATIVE OF CONTROLLER AS DIRECTED BY THE MANUFACTURER. INSTALL AND WIRE PER MANUFACTURER'S DIRECTIONS. CONTACT IRROMETER AT 951-689-1701 FOR SUPPORT

SOIL MOISTURE SENSOR - FIELD PLACEMENT — N



THIS IS APPLICABLE WHERE ONE SENSOR LOCATION IS USED TO OVERRIDE AN ENTIRE CONTROLLER. SENSOR LOCATION SHALL BE LOCATED IN THE VALVE ZONE MOST REPRESENTATIVE OF THE ENTIRE CONTROLLER. THE VALVE ZONE WITH THE SENSOR SHALL BE THE LAST VALVE TO RUN IN THE CYCLE.

SOIL MOISTURE SENSOR - CONTROL MODULE — O

RPV

REVISIONS:

NO.	DATE	ITEM

PROJECT: ABALONE COVE SHORELINE PARK IMPROVEMENTS

SHEET TITLE: IRRIGATION DETAILS AND SPECIFICATIONS

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www.melendrez.com

REGISTRATION:
LICENSED LANDSCAPE ARCHITECT
JENNIFER PACKER
No.4933
Signature
2-28-15
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: 1305101.00
SUBMITTAL DATE: 07/19/2013
PHASE: CONST. DOCS. (50%)
DESIGNED BY: AH
DRAWN BY: JM / TA
PLAN NO:

L-5.3

LIMIT OF WORK

MULCH ONLY
L.ARCH TO DETERMINE
LOCATION IN FIELD

MULCH ONLY
L.ARCH TO DETERMINE
LOCATION IN FIELD

MULCH ONLY
L.ARCH TO DETERMINE
LOCATION IN FIELD

EXISTING TREE TO REMAIN, TYP.

FOR PLANT LEGEND AND DETAILS
SEE SHEET L-7

GRAPHIC SCALE:1"=20'

LIMIT OF WORK

Pacific Ocean

RPV

REVISIONS:

NO.	DATE	ITEM

ABALONE COVE SHORELINE PARK
IMPROVEMENTS

PLANTING PLAN

PROJECT:

SHEET TITLE:

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2-28-15
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: 1305101.00

SUBMITTAL DATE: 08/09/2013

PHASE: CONST. DOCS. (90%)

DESIGNED BY: AH

DRAWN BY: JM / TA

PLAN NO:

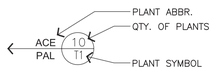
L-6

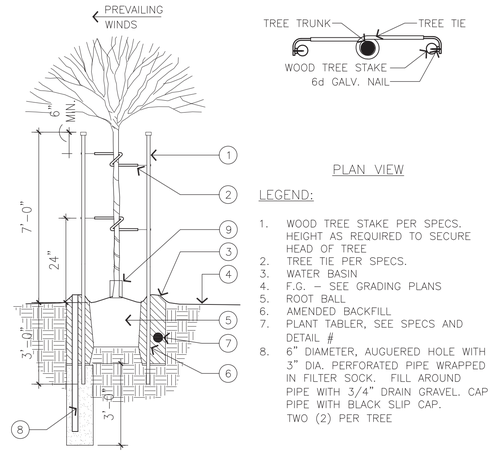
PLANTING LIST

SYMBOL	ABBREV.	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	QUANTITY	DIMENSIONS AT FULL GROWTH (height x width)
TREES							
T1	QUE AGR	QUERCUS AGRIFOLIA	COAST LIVE OAK	24" BOX	STANDARD	3	40'-60' x 40'-50'
SHRUBS / GROUNDCOVERS							
S1	BAC PIL	BACCHARIS PILULARIS 'PIGEON POINT'	COYOTE BRUSH	1 GAL	24" O.C.	418	12" x 12'-0"
S2	COR GIG	COREOPSIS GIGANTEA	GIANT COREOPSIS	1 GAL	12" O.C.	1,973	3'-0" x 12"
S3	COR MAR	COREOPSIS MARITIMA	SEA DAHLIA	1 GAL	12" O.C.	2,368	18" x 12"
S4	DES CES	DESCHAMPSIA CESPITOSA SPP. CESPITOSA	TUFTED HAIR-GRASS	1 GAL	12" O.C.	1,576	3'-0" x 3'-0"
S5	DIP AUR	DIPLACUS AURANTIACUS	STICKY MONKEY FLOWER	1 GAL	24" O.C.	487	3'-0" x 3'-0"
S6	EPI CAN	EPILOBIUM CANUM	CALIFORNIA FUSCHIA	1 GAL	18" O.C.	559	3'-0" x 4'-0"
S7	ERI PAR	ERIOGONUM PARVIFOLIUM	SEA CLIFF BUCKWHEAT	1 GAL	18" O.C.	828	2'-0" x 2'-0"
S8	ESC CAL	ESCHSCHOLZIA CALIFORNICA	CALIFORNIA POPPY	1 GAL	12" O.C.	1,717	30" x 24"
S9	LIM CAL	LIMONIUM CALIFORNICUM	CALIFORNIA SEA LAVENDER	1 GAL	12" O.C.	1,812	2'-0" x 2'-0"
S10	MUH RIG	MUHLENBERGIA RIGENS	DEER GRASS	1 GAL	30" O.C.	715	4'-0" x 4'-0"
S11	RHU INT	RHUS INTEGRIFOLIA	LEMONADE BERRY	1 GAL	24" O.C.	512	6'-0" x 10'-0"
S12	SAL APA	SALVIA APIANA VAR. COMPACTA	COMPACT WHITE SAGE	1 GAL	24" O.C.	70	3'-0" x 3'-0"
S13	SAL CLE	SALVIA CLEVELANDII V. COMPACTA	COMPACT BLUE SAGE	1 GAL	24" O.C.	660	30" x 30"

PLANTING NOTES:

1. CONTRACTOR TO REVIEW ALL UTILITY PLANS AND UTILITY LOCATIONS IN THE FIELD, AND SHALL NOTIFY LANDSCAPE ARCHITECT IF CONFLICTS WITH PLANT MATERIAL LOCATIONS EXISTS.
2. IF CONFLICTS ARISE BETWEEN SIZE OF AREAS AND PLANS, CONTRACTOR TO CONTACT LANDSCAPE ARCHITECT FOR RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN WILL RESULT IN CONTRACTOR'S LIABILITY TO RELOCATE SUCH MATERIALS. CONTRACTOR TO VERIFY EXACT QUANTITIES OF PLANT MATERIAL NECESSARY BASED ON EXISTING CONDITIONS AND EXISTING PLANT MATERIAL COVERAGE.
3. TREES TO BE REMOVED SHALL BE TAGGED BY CONTRACTOR AND REVIEWED BY OWNER'S AUTHORIZED REPRESENTATIVE IMMEDIATELY UPON AWARD OF GENERAL CONTRACT. TREES SHALL BE REMOVED ONLY WHEN APPROVAL BY OWNER HAS BEEN GIVEN.
4. CONTRACTOR SHALL SUBMIT FOR APPROVAL: PHOTOS OF SHRUB MATERIAL. SPECIFICATIONS (SIZE) AND QUANTITY SHALL BE NOTED. NURSERY SOURCE AND CONTACT SHALL BE NOTED.
5. TREES TO REMAIN AND BE PROTECTED ARE IDENTIFIED ON THE PLANS. COORDINATE TREE PROTECTION WITH THE OWNER AS NECESSARY.
6. ANY PLANT DEEMED NOT AVAILABLE BY THE CONTRACTOR SHALL BE NOTED. MAINTENANCE PERIOD MAY NOT BEGIN UNTIL ALL SPECIFIED MATERIALS ARE INSTALLED.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FURNISH PLANT MATERIALS FREE OF PESTS OR PLANT DISEASES. PRE-SELECTED OR 'TAGGED' MATERIAL MUST BE INSPECTED BY THE CONTRACTOR AND CERTIFIED PEST AND DISEASE FREE. IT IS THE CONTRACTOR'S OBLIGATION TO WARRANTY ALL PLANT MATERIALS.
8. ALL PLANT MATERIAL SHALL BE APPROVED ON SITE PRIOR TO INSTALLATION. FINAL LOCATION OF ALL PLANT MATERIAL SHALL BE SUBJECT TO APPROVAL.
9. ALL OVEREXCAVATION REQUIRED TO MEET PLANTING SPECIFICATIONS SHALL BE DONE PRIOR TO PAVING IF PAVING WILL CONFLICT WITH EXCAVATION OF PLANTING PITS.
10. ALL GROUND COVERS SHALL BE APPLIED IN ALL PLANTING AREAS INDICATED ON PLAN AS WELL AS UNDER SHRUBS. GROUND COVERS AND MASS PLANTED SHRUBS SHALL BE TRIANGULARLY SPACED UNLESS OTHERWISE INDICATED.
11. ALL AREAS THAT ARE 2:1 SLOPE OR LESS SHALL BE COVERED WITH 2"-3" DEEP ORGANIC MULCH UNLESS OTHERWISE NOTED. SUBMIT 1 CU. FT. SAMPLE PRIOR TO APPLICATION. AREAS STEEPER THAN 2:1 SHALL BE COVERED WITH JUTE MESH.
12. MINIMUM FOUR (4) SOIL SAMPLES SHALL BE TAKEN BY CONTRACTOR AFTER GRADING OPERATIONS ARE COMPLETED FOR SOIL FERTILITY AND AGRICULTURAL SUITABILITY TESTING AND RECOMENDATIONS. APPROVED LABORATORY IS SOIL AND PLANT LABS (714-282-8777).
13. SEE SPECIFICATIONS FOR SOIL AMENDMENTS SPECIFIED FOR BIDDING PURPOSES ONLY. PROVIDE LANDSCAPE ARCHITECT WITH SOILS REPORT PRIOR TO INSTALLATION OF MATERIALS.
14. THE LANDSCAPE ARCHITECT SHALL BE THE SOLE JUDGE AS TO WHEN THE MAINTENANCE PERIOD BEGINS.
15. PLANT QUANTITIES AS NOTED ON THE PLANS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL PLANTS AS REQUIRED TO MEET ON-CENTER SPACING AS NOTED IN THE PLANT LEGEND.



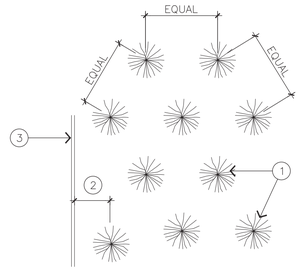


PLAN VIEW

LEGEND:

1. WOOD TREE STAKE PER SPECS. HEIGHT AS REQUIRED TO SECURE HEAD OF TREE
2. TREE TIE PER SPECS.
3. WATER BASIN
4. F.G. - SEE GRADING PLANS
5. ROOT BALL
6. AMENDED BACKFILL
7. PLANT TABLER, SEE SPECS AND DETAIL #
8. 6" DIAMETER, AUGUERED HOLE WITH 3" DIA. PERFORATED PIPE WRAPPED IN FILTER SOCK. FILL AROUND PIPE WITH 3/4" DRAIN GRAVEL. CAP PIPE WITH BLACK SLIP CAP. TWO (2) PER TREE

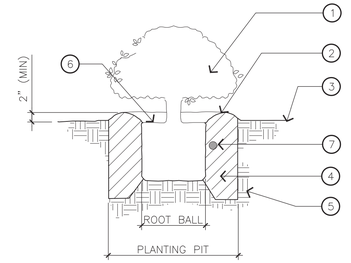
1 TREE PLANTING AND STAKING
N.T.S.



LEGEND

1. LOCATE PLANTS WITH EQUAL SPACING AS INDICATED ON PLAN (TRIANGULAR SPACING).
2. ON-CENTER SPACING. UNLESS NOTED OTHERWISE ON DRAWINGS.
3. FACE OF BUILDING, PAVING, OR HEADER SHOWING AREA LIMIT.

4 PLANT SPACING
N.T.S.

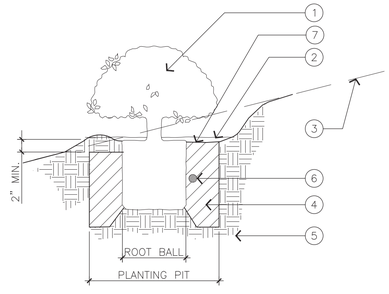


LEGEND
1. CONTAINER PLANT
2. WATER BASIN
3. FINISH GRADE
4. AMENDED BACKFILL
5. EXISTING SOIL
6. MULCH
7. PLANT TABLET

2 SHRUB PLANTING
N.T.S.

CONTAINER SIZE	NO. OF TABLETS	POSITION @ ROOTBALL
1 GALLON	1	
24" BOX	6	

5 PLANT TABS
N.T.S.



LEGEND

1. CONTAINER PLANT
2. WATER BASIN, COMPACT AS REQ'D. TO HOLD WATER
3. F.G.
4. AMENDED BACKFILL
5. EX. SOIL
6. PLANT TAB.
7. MULCH

3 SHRUB PLANTING ON SLOPE
N.T.S.

REVISIONS:

NO.	DATE	ITEM

PROJECT: ABALONE COVE SHORELINE PARK IMPROVEMENTS

SHEET TITLE: PLANTING LEGEND, NOTES AND DETAILS

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REGISTRATION:

LICENSED LANDSCAPE ARCHITECT
JENNIFER PACKER
No.4933
Signature
2-28-15
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: 1305101.00

SUBMITTAL DATE: 08/09/2013

PHASE: CONST. DOCS. (90%)

DESIGNED BY: AH

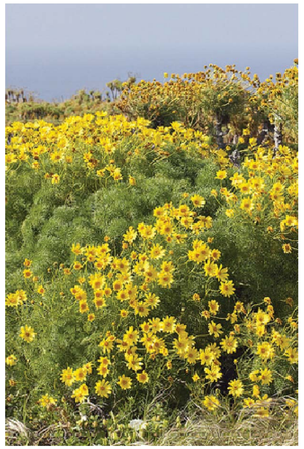
DRAWN BY: JM / TA

PLAN NO:

L-7

QUERCUS AGRIFOLIA
COAST LIVE OAK

BACCHARIS PILULARIS
COYOTE BRUSH



COREOPSIS GIGANTEA
GIANT COREOPSIS

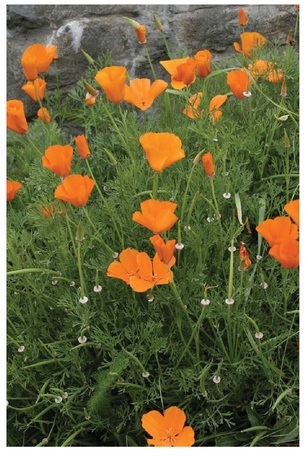
COREOPSIS MARITIMA
SEA DAHLIA

DESCHAMPSIA CESPITOSA SPP. CESPITOSA
TUFTED HAIR-GRASS

DIPLACUS AURANTIACUS
STICKY MONKEY FLOWER

EPILOBIUM CANUM
CALIFORNIA FUSCHIA

ERIOGONUM PARVIFOLIUM
CALIFORNIA FUSCHIA



ESCHSCHOLZIA CALIFORNICA
CALIFORNIA POPPY

LIMONIUM CALIFORNICUM
CALIFORNIA SEA LAVENDER

MUHLENBERGIA RIGENS
DEER GRASS

RHUS INTEGRIFOLIA
LEMONADE BERRY

SALVIA APIANA VAR. COMPACTA
COMPACT WHITE SAGE

SALVIA CLEVELANDII V. COMPACTA
COMPACT BLUE SAGE

REVISIONS:

NO.	DATE	ITEM

PROJECT: ABALONE COVE SHORELINE PARK IMPROVEMENTS

SHEET TITLE:

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2-28-15
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Date
STATE OF CALIFORNIA

PROJECT NO: 1305101.00

SUBMITTAL DATE: 08/09/2013

PHASE: CONST. DOCS. (90%)

DESIGNED BY: AH

DRAWN BY: JM / TA

PLAN NO:

L-8.1

SHEET NO: 15 OF 16

LANDSCAPE FORMS
GRETCHEN TRASH RECEPTACLE

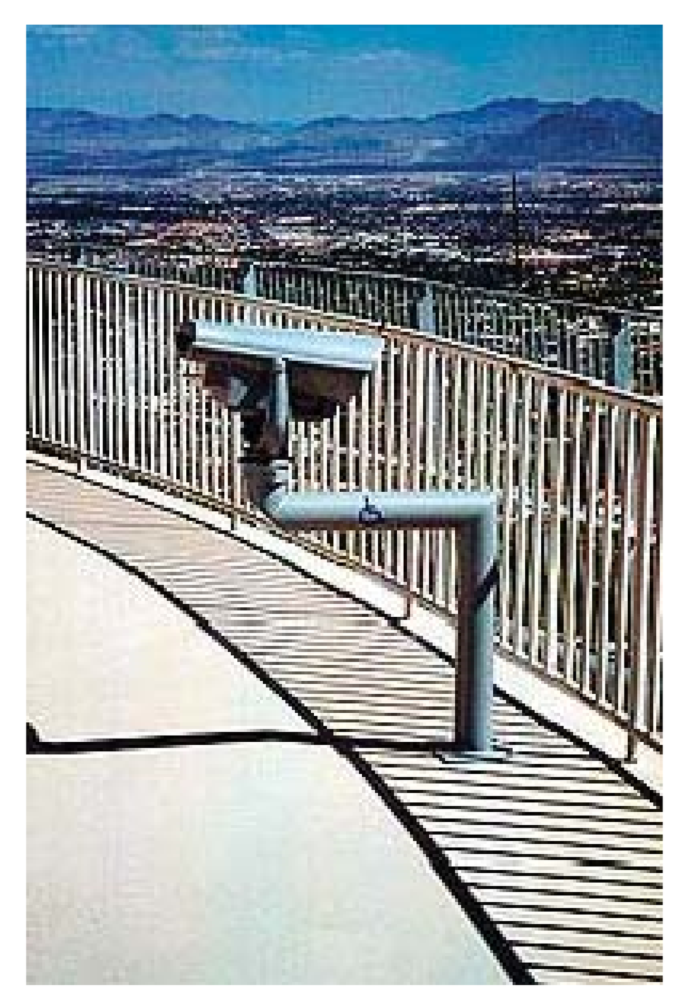
LANDSCAPE FORMS
ADA PICNIC TABLE WITH
SEATS

LANDSCAPE FORMS
BALUSTRADE BENCH
(AT VIEWING NODES)

LANDSCAPE FORMS
SHADOWLINE BENCH
(ALONG TRAILS)

POLIGON SHADE STRUCTURE
DISTRIBUTED BY MIRACLE PLAYGROUND
GRE–30

LANDSCAPE STRUCTURES
FOSSIL DIG PLAY AREA



SEECOAST MANUFACTURING
MARK III COIN OPERATED TELESCOPE

CYCLESAFE, INC.
INVERTED U BIKE RACK

FEENEY INC.
1/4" CABLE RAIL

RPV

REVISIONS:

NO.	DATE	ITEM

PROJECT:
ABALONE COVE SHORELINE PARK
IMPROVEMENTS

SHEET TITLE:

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REGISTRATION:
LICENSED LANDSCAPE ARCHITECT
JENNIFER PACKER
No.4933
Signature
2–28–15
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: 1305101.00
SUBMITTAL DATE: 08/09/2013
PHASE: CONST. DOCS. (90%)
DESIGNED BY: AH
DRAWN BY: JM / TA
PLAN NO:

L-8.2